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NEW YORK CITY TRANSIT AUTHORITY

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FIRST ANNUAL REPORT
of the NEW YORK

*Submitted in accordance with Chapters
200 and 201 of the Laws of 1953 to*

The Honorable Thomas E. Dewey, Governor
The Honorable Robert F. Wagner, Mayor

July 1, 1953

CITY TRANSIT AUTHORITY

and the Legislature of the State of New York
and the Board of Estimate of the City of New York

June 30, 1954

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NEW YORK CITY TRANSIT AUTHORITY



HARRIS J. KLEIN

Member

HARRIS J. KLEIN of Brooklyn is a native New Yorker, and a graduate of the Brooklyn Law School. During the past twenty years he has specialized in labor law in his field, representing freight and passenger carriers by motor vehicle. He has also represented motor carriers and trucking associations in labor negotiations with teamsters' unions throughout the Middle Atlantic area. Mr. Klein is past president of the National Association of Motor Carriers; is General Counsel to the Intercity Motor Carriers Association of New York, and Counsel to the Affiliated Trucking Association of New York. Mr. Klein recently served as a representative to representatives of the Israeli Government on transportation problems. He was appointed as a member of the New York City Transit Authority by Mayor Vincent R. Impellitteri.

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DOUGLAS M. MOFFAT

Member

DOUGLAS M. MOFFAT is a graduate of Yale College, Harvard Law School and a member of the law firm of Cragin, Swaine, Moran, and Wolff. During World War II he was a Captain in the U.S. Army's Office of Alien Property Custodian, liquidating enemy properties in the Orient. In World War II he was the principal representative of the Government at the Middle East Supply Center in Cairo, Egypt. He is a member representing the public service industry of the Board of Fair Employment of Employment on Public Works, created under the Labor Law of New York State, and is Chairman of the Temporary Commission on Employment Training for Educational Purposes created in 1952 by the New York State Legislature. Mr. Moffat was elected a member of the New York City Transit Authority to take the place of Mr. Eugene F. Moran, resigned, by the unanimous vote of the then four remaining members of the Authority.



HUGH J. CASEY

Chairman

MAJOR GENERAL HUGH J. CASEY is Assistant to the Chairman of the Board of Directors and a Member and Secretary of the Operations Committee. He is a graduate of the U. S. Military Academy at West Point, the U. S. Engineers School, and the Technische Hochschule (Doctor of Engineering), Berlin. From his West Point graduation in 1918, until his retirement with the rank of Major General on December 21, 1949, General Casey served in numerous engineering capacities in the U. S. Army, including assignments in Civil and Flood Control Investigation, Pittsburgh District; Executive of Rivers and Harbors Section, Office of Chief of Engineers; Chief Engineer of the Passamaquoddy Power Development Project; and in charge of New England Flood Control surveys and construction, among other Engagements. After retirement he conducted a tour of the Philippines on flood control and water power investigation and construction programs. In 1946-47 he was Chief of Design and Engineering Section, Office of the Undersecretary General of the National Defense Construction program of approximately \$15,000,000,000. During World War II he was Chief Engineer in the Philippines, GHQ, Southwest Pacific Area, under General MacArthur, and in August, 1944, became Commanding General of the Army Service Command on the Philippine Island Operations, in charge of combat support and logistic support activities. Between 1947-48 General Casey was Chief Engineer of reconstruction activities on Luzon and Okinawa, and post-war construction in Japan and Korea aggregating \$600,000,000 in value. General Casey holds many decorations and medals for service. He was appointed to the New York City Transit Authority by Governor Thomas E. Dewey, and was elected Chairman at the beginning of the Authority's administration.



WILLIAM G. FULLEN

Member

WILLIAM G. FULLEN is a native New Yorker and a graduate of the Fordham University School of Law. In 1907 he was appointed as clerk in the Law Department of the Public Service Commission, and held various capacities in that division until July 1, 1923, when he was appointed Chief Counsel to the Transit Commission. When the Board of Transportation was formed on July 1, 1924, he was appointed Chief Counsel from which position he became a member of the Board of Transportation on August 1, 1924, and engaged in private law practice. On January 10, 1929, he was appointed Chairman of the Transit Commission by Governor Franklin D. Roosevelt, and on February 26, 1932, he was reappointed by Governor Herbert H. Lehman for a term of six years. Mr. Fullen was appointed a member of the New York City Transit Authority by Mayor Vincent R. Impellitteri.



HENRY K. NORTON

Member

HENRY K. NORTON of New York City is President of the New York Suburban and Western Railroads Company. He is a native of Chicago, a graduate of Dartmouth College, Pomona College, and the University of California. Mr. Norton has had a varied career in corporation law practice, newspaper work, and as an executive in many corporations and transportation companies and associations, including the National Broadcasting Company, the Radio Corporation of America, American Short Line Air Lines, National Plan Association, and First National Bank and Trust Company of Paterson, N. J. Mr. Norton served in the U. S. Army Air Service in World War I. He has lectured and written extensively on history and foreign affairs, and is the author of several books on the subject. Mr. Norton was appointed a member of the New York City Transit Authority by Governor Thomas E. Dewey.



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NEW YORK CITY TRANSIT AUTHORITY



FIRST ANNUAL REPORT
OF
THE NEW YORK CITY TRANSIT AUTHORITY
for the Fiscal Year Ended June 30, 1954

MEMBERS OF THE BOARD

	<i>Term Expires</i>
Hugh J. Casey, Chairman	April 1, 1959
William G. Fullen	April 1, 1959
Harris J. Klein	April 1, 1959
Douglas M. Moffat	November 5, 1959
Henry K. Norton	April 1, 1959

S. H. Bingham, Executive Director and General Manager
Harold L. Warner, General Counsel
Wm. Jerome Daly, Secretary



NEW YORK CITY TRANSIT AUTHORITY

FIRST ANNUAL REPORT

1953-1954

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I

FOREWORD

ON June 15, 1953 when the New York City Transit Authority took over operation of the transit facilities owned by the City of New York, it was faced with a most difficult situation. The transit system was incurring a large operating deficit. Lack of funds had permitted only minimal maintenance work for safe operation on the transit properties. The result was an enormous backlog of urgent major repairs, renewals and replacements which had been deferred far beyond the time recognized for proper maintenance standards. Employee morale and productivity, and labor-management relations were at a low ebb and sinking even lower. There was a complete absence of anything resembling normal and peaceable labor relations between employer and employees. Neither management nor labor sought to conceal from public disclosure its animus toward the other. In the previous four years work stoppages and slowdowns had occurred on 16 different occasions, involving thousands of hours of lost productivity and gross inconvenience to the riding public.

Faced with this deplorable situation and under statutory mandate to operate the transit system on a self-sustaining basis, the Authority acted to eliminate the operating deficit and stabilize the fare at the present basic rate of 15 cents.

It has instituted a long-range program of deferred maintenance, rehabilitation and modernization which will restore the transit properties operated by the Authority to first class physical condition. A capital program which will permit modernization of existing facilities and expansion and improvements of service, has received the favorable consideration of the City Planning Commission and Board of Estimate.

A labor-management policy has been estab-

lished and agreements have been signed with the organizations representing Authority employees which will insure sound labor relations and restore to management the necessary authority to control and direct its operations for the convenience, safety and service of the passengers using the transit system.

This first Annual Report describes briefly the progress made thus far by the Authority in carrying out its responsibilities in operating a two-billion dollar transit property, carrying over 1,500,000,000 passengers per year with a total annual operating and capital budget of over 400 millions of dollars.

Creation Of The Transit Authority

Mounting transit deficits under the Board of Transportation with their throttling effect on the City's expense budget, and the need for improved efficiency and economy in transit operation revealed by engineering study of the system, indicated the necessity for a change in transit administration.

Accordingly, the Governor proposed and the Legislature on March 25, 1953 enacted Title 15—Public Authorities Law, creating the New York City Transit Authority and empowering it to lease from the City all rapid transit and surface lines then operated by the Board of Transportation, and to maintain and operate them at a fare sufficient to pay operating costs. Capital costs remain a charge upon the City.

The New York City Transit Authority consists of a Board of five members who are residents of New York City. Two members are appointed by the Governor, by and with the advice and consent of the State Senate, and two are appointed

by the Mayor. These four elect the fifth member. The entire Board elects the Chairman of the Authority. Authority members serve without compensation as a public service and may not hold any public office under State or City during their six-year term of office.

The Authority appoints all employees and fixes their compensation subject to the provisions of the Civil Service Law.

It is empowered in general to exercise all requisite and necessary authority to manage, control and direct the maintenance and operation of transit facilities transferred to it, for the convenience and safety of the public. It can extend, modify, discontinue, curtail or change routes, provided it notifies the Board of Estimate of its intention to do so and, if requested by the Board, conducts public hearings on such matters.

Under the Act, the Authority is mandated to fix or adjust the rate of fare to produce sufficient revenue to meet the expense of operation and to maintain such operation on a self-sustaining basis. Any change in rate of fare must be determined upon between January 1st and June 30th and may be put into effect on any date during that period or on July 1st, except during 1953 when such changes could be made until July 31st.

The Authority is also required, not later than July 1, 1955, to prepare a plan for the sale and transfer of omnibus facilities under its jurisdiction to private ownership, the proceeds of such sale or transfer to be paid to the City.

Lease Agreement

Pursuant to the provisions of the Act, the Authority and the City negotiated and on June 1, 1953 entered into an agreement of lease for operation by the Authority of the city-owned transit facilities for a period of ten years commencing June 15, 1953.

The lease spelled out in greater detail some of the provisions of the Law and the relations between the City and the Authority.

The Authority declared that it would not raise the rate of fare without having first studied and considered, to the extent feasible and permissible

within the time limits fixed by the Act, the operations, finances and revenues of such transit facilities. It agreed not to charge depreciation or obsolescence as an expense of operation for the purpose of determining the rate of self-sustaining fare.

The Authority declared that in connection with the exercise of its powers under the Act to extend, modify, discontinue, curtail or change routes or methods of transportation it would consult with and give due consideration to the views of the Board of Estimate in such matters, and that it would not make any substantial extension of existing routes of transportation without prior approval of the Board of Estimate.

The lease also provided that, if in the opinion of the Board of Estimate and Mayor, service on a discontinued present privately operated transit facility is deemed to be in the public interest, then the Authority is required to prepare a plan for acquisition by the City of such transit facility and if the plan is approved by the Mayor and Board of Estimate, the Authority must maintain and operate the acquired facility in accordance with the provisions of the Act.

The Authority recognized the unique public transportation problem confronting the residents of Staten Island. The Authority declared its intention to study the entire transportation system in the Borough of Richmond in order to determine whether it is desirable and feasible to integrate and synchronize Authority bus operations with passenger rail service by the Staten Island Rapid Transit Railway and the ferries. Such a study has been prepared by the Authority's staff and consultants and is awaiting public hearing as this report is written.

The Authority further agreed to complete construction and rehabilitation of the Rockaway Lines acquired by the City from the Long Island Rail Road on September 5, 1952.

The Authority recognized that any plan for the sale of surface lines or the property and equipment used on such lines would require the separate approval of the Board of Estimate.

It also agreed not to conduct bus operations

without Board of Estimate consent, over any portion of a bus route of a private omnibus operator presently franchised by the City to operate over those routes.

Financial Situation On June 15, 1953

When the New York City Transit Authority took over the operations of the City's transit facilities on June 15, 1953 the New York City Transit System was incurring a monthly operating deficit of nearly \$4,000,000 with every indication of a decline in total passenger traffic simultaneous with an increase in expenses unless economies were instituted. In the performance of its statutory duty to place the transit operations on a self-sustaining basis, it caused detailed studies and analyses to be made of New York City Transit System operations. It retained consultants to furnish up-to-date reports on what rates of fare would be necessary to bring revenues into balance with operating and maintenance expenses, and what immediate and long-range economies could be instituted, and at the same time continue convenient and safe service to the public.

These studies of the budget, deferred maintenance needs, and estimated revenues under various rates of fare indicated the need of a 15¢ fare for self-sustaining operations. The Authority accordingly authorized an increase in the fare from 10¢ to 15¢ effective July 25, 1953.

The Authority adopted an Operating Budget for the fiscal year ended June 30, 1954 totaling \$248,089,300, exclusive of deferred maintenance projects. During the war years shortages of materials hampered all maintenance work. Lack of funds during the post-war years of deficit operation reduced maintenance work to the bare essentials necessary to insure safe operation of the system. As a result the physical structure and equipment, parts of which are 50 years old, are sadly in need of major rehabilitation, replacements and modernization. Reports of consulting engineers had indicated that the conservation of the transit properties required an immediate start on a program of deferred maintenance of not less than \$75,000,000 to be expended at a rate of

\$15,000,000 per year. This program is now under way and is dealt with further in this Report.

It was estimated in July 1953 that the increased transit fare would produce an annual increase in revenue if applied for the entire fiscal year of approximately \$67,100,000, equivalent to an increase of 32%. At the same time it was estimated that passenger riding would decline about 11% because of the increased fare, due in part to lower fares on certain private franchise bus lines in Manhattan, The Bronx and Queens and an additional 2% due to the continuing downward passenger trend. The actual passenger revenue for the fiscal year July 1, 1953 to June 30, 1954 increased \$60,967,651 or 29%, while the decline in revenue passengers was 233,715,194 or 11%.

The results of operation at the higher rates of fare set on July 25, 1953, details of which are to be found in the financial pages of this Report, indicate that the Authority's present basic fare is not excessive. Against over-all operating and maintenance expenses for the fiscal year 1953-54 of \$267,977,823 the Authority's income from all sources, of \$273,690,324, resulted in a small surplus of \$5,712,501. In view of the many uncertainties of labor and material costs during the year ended June 30, 1954, the Authority believes it has dealt fairly with the public in providing safe and convenient transit service at the minimum basic fare necessary to insure financial stability of its operations as required by law.

Capital Budget

In addition to the repair and rehabilitation work being done on the transit facilities under the Deferred Maintenance Program, the New York City Transit Authority is carrying on a major program of new construction, modernization of plant, track and structures and replacement of equipment with capital funds provided by the City.

The Capital Budget request for 1954 was substantially formulated in June 1953 before Authority operation began. However, the speed with which the work contemplated in that budget and the remainder of the 1953 program was contracted

for, did mark an advance over the recent past.

In allocating funds to the Authority for capital purposes the Board of Estimate drew from the \$500,000,000 of debt limit exempt funds which had been planned for the Trunk Line Construction Program.

Because of the limited capital funds available to the City, and the tremendous needs for other vital city improvements, the Board of Estimate requested the Authority to review its capital needs, and to submit a revised program which would take into consideration not only transit needs, but also the City's financial limitations for all capital purposes.

Such a program was prepared by the Authority's staff, approved by the Authority and submitted to the Board of Estimate on January 12, 1954.

It proposed a Capital Program with projects in order of priority, and stressed the need for major rehabilitation of the older parts of the system, and replacement of over-age rapid transit cars, as well as construction of some new facilities.

This program is described in greater detail in later sections of this Report, and forms the basis for the 1955 Capital Budget request. The object of the program is the improvement of service and reduction of operating costs on the older parts of the system through installation of modern equipment and rolling stock. This need for rehabilitation of the existing plant and equipment is given equal or greater importance than construction of new extensions of transit lines. It recognizes that the limited funds now available will yield greater immediate returns in service to the rider and efficiency of operation if expended on improvement and full utilization of existing facilities.

Financially, it is based on the expenditure during the next five years of the remainder of the transit funds exempt from the City's debt limit, some \$387,000,000, in addition to allocation of \$40,000,000 of non-exempt funds per year. Since the Authority cannot accumulate depreciation funds out of operating revenue, it must rely on the city to provide capital funds for replacement of obsolete and outdated equipment. The amount of \$40,000,000 per year is the amount

estimated as the requirement for such purposes.

Labor Relations

The most serious of the problems facing the Authority during its first year of administration and operation has been the turmoil in its relations with its employees.

In any organization the problem of labor relations is always of major importance. In a service organization such as the New York City Transit Authority, with 43,000 employees, with its labor costs amounting to 69% of its entire budget, and with its inheritance of a long history of labor unrest and poor employer-employee relations, this problem was inevitably of paramount importance.

Developments during the year laid a basis for a better and more stable relationship between the New York City Transit Authority and its employees and the organizations representing them.

The Authority at its inception took over the existing Memorandum of Understanding that had been signed by the Board of Transportation and nine organizations representing its operating employees, and which remained in effect until December 31, 1953.

Negotiations between the Authority and employee organizations prior to the expiration of the Memorandum of Understanding were inconclusive and a strike was threatened by the employees.

In the face of this strike threat the Mayor, on January 6, 1954, appointed a Fact-Finding Committee consisting of Messrs. George Faunce Jr., John I. Snyder Jr., and John K. Turcott "... to inquire into and make recommendations on the issues in dispute...."

The Committee's public hearings lasted eleven days, during which 2,449 pages of testimony and 131 exhibits were presented by thirteen employee organizations and the Authority.

The Committee presented its report on May 17, 1954. The Authority accepted the recommendations of the Committee with regard to working conditions, but could not accept others for legal, financial or policy reasons. In a statement issued on May 27, 1954, the Authority presented the reasons for its action. This statement reads:

**STATEMENT WITH RESPECT TO ACTION
BY NEW YORK CITY TRANSIT
AUTHORITY AS COMPARED TO
RECOMMENDATIONS OF THE MAYOR'S
FACT-FINDING COMMITTEE**

"It has been indicated in the press and by certain labor leaders that the New York City Transit Authority has rejected the findings and recommendations of the Mayor's Fact-Finding Committee in its report dated May 17, 1954.

The actions taken by the New York City Transit Authority on revision of wage rates and working conditions are believed to be generally consistent with the findings of the Fact-Finding Committee in all respects, except for:

- (a) A binding contract, including recognition of exclusive bargaining agencies.
- (b) Recognition of impartial arbitrator with final power to resolve disputes between labor and management.
- (c) Across the board increases of 6½c per hour effective January 1, 1954, and 7½c an hour, effective March 15, 1955.

The other recommendations of this Committee with respect to revision of working conditions, including certain contentions made by labor representatives and originally opposed by the Authority, have been adopted in the Authority Resolution of May 24, 1954.

Our decision with respect to non-adoption of items 'a' and 'b' above covering exclusive bargaining contract and provision of impartial arbitrator with final power to resolve disputes, was not an arbitrary decision but was dictated by the firm belief, supported by outside legal opinion, that such actions are not legally possible.

Under an objective to afford employees to designate a labor union or other organization to serve as their exclusive representative on grievance procedures or complaints that any run or work schedule imperils the health or safety of an employee or employees, authority has been granted for elections, by job position and division, for the designation of unions or organizations to represent such employee groups in such procedures, without denying the right, however, to individual employees who do not so designate a union or organization to represent them, their rights to process their own individual grievances.

With respect to the designation of an impartial arbitrator with final power to resolve disputes which would be binding both on the Authority and labor and which as above indicated would be in direct violation of the law, it may be observed that the unpaid members of the Transit Authority are in a sense impartial arbitrators representing the public interest in arbitration and determination of such disputes as arise between the paid Management operating the transit system and the employees working under their direction. To this degree, the members of the Transit Authority differ from "management" as normally referred to in management-labor relations.

With respect to Item 'c', wage revisions, the action of

the Authority in granting upward wage revisions ranging from 5c to 12c per hour* was materially more favorable to the affected employees than the first phase adjustment recommended by the Fact-Finding Committee. The Authority has taken cognizance of the Fact-Finding Committee's own findings to the effect that straight across the board increases which have totalled 55c per hour, have created inequities between the normal differentials of various classes of employees. The Fact-Finding Committee recommended that future wage negotiations should be concluded on a percentage basis. To adopt the across the board wage revisions recommended by the Committee which would result in total recent across the board increases of 69c per hour would merely aggravate further the wage inequities which this committee has recognized.

It is believed, therefore, that the action by the Authority in distributing a greater wage adjustment than recommended by the Committee but distributed on an equitable basis is more advantageous to our employees. The early establishment of more reasonable compensation for the skilled and semi-skilled categories which have suffered disproportionately from uniform across the board increases, affords opportunities to the lower grade employees to seek promotions to positions of greater responsibility with commensurately greater compensation.

The Authority has further resolved to consider further adjustments in wage rates to be effective March 15, 1955, after experience has demonstrated real cooperation of our employees in effecting essential economies and also dependent on the repeal of Section 16-a of the Rapid Transit Law governing sick leave. No other department of the state or city nor other public or private transit systems have such restrictive legislative mandates governing sick leave, the abuse of which entails unnecessary expense ranging from three million dollars to six million dollars annually.

It is specifically pointed out that the Authority has not denied consideration to future wage adjustments but has merely deferred any commitment on additional rates such as recommended by the Committee, which in the absence of further economies, would result in deficit operation necessitating an upward revision of fares.

The public as well as our employees should understand that the Authority has both interest and concern, not only for the public but also for our employees.

We seek a safe, efficient and economical transit operation to provide the public dependable mass transportation at the lowest cost.

We seek also to give our employees proper standards of working conditions and just and adequate compensation for their labor, comparable to those enjoyed by others of comparable status both in the New York area and in the industry.

We seek to establish, within the provisions of law, cordial relations between the Authority and representative labor union and employee organizations under a joint endeavor to operate an efficient transit system with due

* This was modified on July 22, 1954 to 6½c to 12c per hour.

and full regard to fair and just compensation and proper working conditions and standards.

We have no objective to destroy labor unions or employee organizations, but we shall rightfully oppose, as is our duty, any illegal demands and such other demands which we regard as excessive and unwarranted, all with the same vigor which we expect from employee representation in their arguments in behalf of what they consider their just demand.

When consideration is given to the heavy burden of interest and amortization charges and the charges for capital improvements which are borne by taxation on the citizens of New York, it should be recognized that the 15c fare now established and required for self-sustaining operation is already high and should not be increased. Future wage adjustments, barring any unanticipated major inflationary change, should be made within the limits of our present fare, by correction of abuses and by an approach to working standards which prevail in industry. That objective of improved work standards can and should be attained without a so-called 'inhuman speed up' but rather by normal work output of each individual in his allotted task.

Our employees currently enjoy many favorable working advantages in addition to their wages.

They enjoy civil service status with its privileges and security.

They enjoy free transportation over the entire New York City Transit System which, on a 7-day round-trip basis, is equivalent to 5¢ per hour.

They enjoy highly favorable pension rights under a secure funded program which is currently costing the Transit Authority in excess of \$22,000,000 annually.

They receive 40 hours pay, not for 40 hours work but for 37½ hours, which is equivalent to 6½% increase in their basic 40 hours per week pay rate, or approximately 10c to 15c per hour.

They enjoy the advantages of a costly health insurance program, half the cost of which in an amount of over \$22,000,000 annually is borne by the Authority, and at greater expense to the Authority than by payment of full Blue Cross such as is provided on other transit systems.

They enjoy sick leave privileges as previously referred to which are unmatched anywhere in the industry.

Liberal policies, greatly superior to those prevalent in the industry, take care of personnel injured in line of duty, including payment of the full differential between Workmen's Compensation and their full pay. In addition, the Authority provides liberally for continued employment on light duty assignments of personnel injured or partially disabled through illness in other than service incurred injury cases.

The over-all summation of wage rates, as now adjusted upward from January 1, 1954, and these material so-called 'fringe benefits' afford our hourly rate personnel, with possibly limited exceptions, a combination of compensation and working conditions approached by few of

comparable status in the industry or in the Metropolitan New York Area.

It is believed that the action of the Transit Authority on adjustment of wage rates and working conditions is fair and equitable to all."

This action was unsatisfactory to the employee organizations, and there were further strike threats. However, on June 11, 1954 negotiations were resumed between the Authority and the organizations of its employees.

In accordance with its resolution of May 24th elections were held on June 25, 1954 to designate the organizations to serve as exclusive representatives on grievance procedures or complaints that any run or work schedule imperils the health or safety of an employee or employees. The Transport Workers Union, Local 100, was elected as representative in all but two units. Division 1056 of the Amalgamated Association of Street, Electric Railway and Motor Coach Employees of America was elected as representative in the Queens Bus Division, and Division 726 of the same organization was elected in the Staten Island Bus Division.

The negotiations finally terminated in the signing of agreements with the TWU on July 22, 1954; on July 29, 1954 with Locals 726 and 1056 of the Amalgamated Association; and on August 2, 1954 with Local 1397 of the Amalgamated Association. These agreements terminate on June 30, 1956.

The agreements provide that the Authority and the employee organizations will join in seeking a declaratory judgment in the State Supreme Court on the legal right of the Authority to enter into a labor contract for a fixed term. Until such a legal right is determined to exist the Authority has the right to terminate the agreement on notice to the employee organizations.

The agreements also specify and spell out a grievance procedure including the appointment of impartial advisors to make recommendations with respect to grievances not settled at earlier steps of the procedure.

Other provisions of the agreement include a wage increase to the Authority's hourly rated employees ranging from 6½¢ to 12¢ per hour, retroactive to January 1, 1954; a provision for consideration of a further wage increase on March 15, 1955 based

on the Authority's ability to pay at that time; joint action to end sick leave abuses by legislative approval of changes in sick leave procedures to end abuses; and working condition changes recommended by the Fact-Finding Committee.

The agreement includes a pledge by the employee organizations to accept a strong statement of management's right to exercise all normally accepted management prerogatives to operate the transit system safely, efficiently and economically.

By resolution, the Authority also granted rate increases retroactive to January 1, 1954 to its annually paid supervisory and administrative employees.

* * *

The New York City Transit Authority can look back over its first full year of operation with some satisfaction. It recognizes, however, that much remains to be done to improve its service to the passenger, and to increase the efficiency and economy of its operations.

The signing of agreements with the organizations

representing its employees gives reasonable assurance of a two-year period of stability in labor relations.

Substantial economies have been made in operations, and additional savings are expected, so that even with higher labor costs now in effect, the 15¢ fare should be sufficient to meet operating expenses if the level of the general economy does not change, and the Authority receives the cooperation of its employees.

A start has been made on the deferred maintenance program to restore the transit facilities to the proper level of maintenance and appearance.

Progress is being made on a Capital Program which will result in additional facilities, new equipment, and improved service to the passengers on the transit system.

The Transit Authority recognizes its responsibilities to the users of the transit system, to its employees, and to the City as a whole and will continue in its endeavors to provide the safest, best and most economical transit service possible.

THE NEW YORK CITY TRANSIT AUTHORITY

September 16, 1954

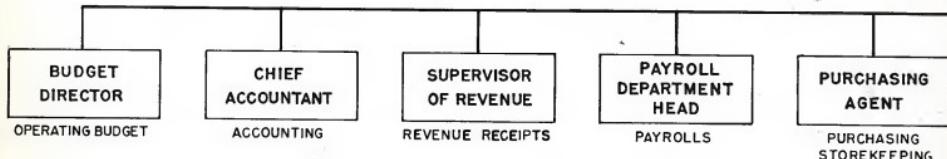
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ORGANIZAT
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NEW YORK CITY T

**EXECUTIVE
GENERAL**

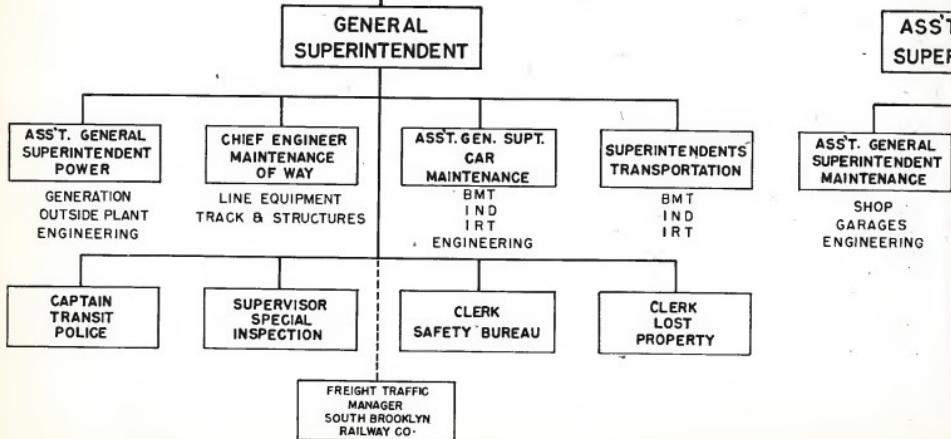
LAW
REAL ESTATE
CONCESSIONS
TORTS TRIALS
WORKMEN'S COMPENSATION
CONTRACTS

**GENERAL
COUNSEL**



RAPID TRANSIT OPERATION

SURFACE



TRANSIT AUTHORITY

ORGANIZATION CHART

30, 1954

TRANSIT AUTHORITY

GENERAL DIRECTOR

GENERAL MANAGER

SECRETARY

PUBLIC RELATIONS
RECORDS & MAIL
MINUTES & PROCEEDINGS

DIRECTOR OF
BUILDING &
OFFICE SERVICES

BUILDING AND
OFFICE SERVICES

PERSONNEL
CLERK

PERSONNEL

MEDICAL
DIRECTOR

MEDICAL

ASS'T. DIRECTOR
LABOR
RELATIONS

GRIEVANCES

ASSISTANT
STATION
SUPERVISOR

CIVIL DEFENSE

OPERATION

GENERAL
SUPERINTENDENT

ASST. GENERAL
SUPERINTENDENT
TRANSPORTATION

BROOKLYN (MAJOR PART)
QUEENS & MANHATTAN
STATEN ISLAND
& BROOKLYN

ENGINEERING

CHIEF
ENGINEER

DIVISION ENGINEER
STAFF
FUNCTIONS

CAPITAL BUDGET
CONTRACTS &
SPECIFICATIONS
CONTRACT PAYMENT
& TRAFFIC RESEARCH
CONTRACT ADJUSTMENT

DIVISION ENGINEER
DESIGNS

DIVISION ENGINEER
CONSTRUCTION

DIVISION ENGINEER
MATERIALS
INSPECTION

DIVISION ENGINEER
TRACK

ENGINEER
LINE
EQUIPMENT

ENGINEER
SIGNALS
& TELEPHONES

* TRANSFERRED TO MAINTENANCE OF WAY - OCTOBER 1, 1954

II

CAPITAL PROGRAM OF MODERNIZATION, IMPROVEMENTS AND EQUIPMENT

UNDER the Agreement of Lease, the Authority must submit its annual Capital Budget Program to the City Planning Commission prior to August 15th. When the Authority took over operation of the City's transit facilities on June 15, 1953, there was little time to formulate a new Capital Program to implement its aims and objectives under the law,

and it tentatively adopted the program then in preparation by the former Board of Transportation.

Approved projects under the 1954 Capital Program, currently under construction or authorized, and advanced during the fiscal year ended June 30, 1954, are listed in the following tabulations.

Accomplishments and Progress of Capital Improvements For Fiscal Year Ended June 30, 1954

	<i>Estimated Cost</i>
Projects completed in fiscal year ended	
June 30, 1954	\$ 20,933,000
Projects commencing in fiscal year ended	
June 30, 1954 but not yet completed	70,095,000
Projects under construction at beginning of	
fiscal year ended June 30, 1954	48,200,000
TOTAL	<u>\$139,228,000</u>
Expenditures for Engineering, Administra-	
tive and other expenses in connection	
with above for fiscal year ended June	
30, 1954	4,704,000
TOTAL FOR TRANSIT PURPOSES	<u><u>\$143,932,000</u></u>

New Equipment and Improvements Paid or to-be Paid from Capital Funds, Portions of Which Were in Progress During the Fiscal Year Ended June 30, 1954

	<i>Estimated Cost</i>
Construction and equipment for operation	
of 11-car trains on the Flushing Line	\$ 28,465,000
Project T-11, Culver Line Connection and	
Rehabilitation	28,155,000
Project T-27, Queens Boulevard — 60th	
Street Tunnel Connection	24,062,000
Project T-18k, Rockaway Line Rehabilita-	
tion from Liberty Avenue to the Rock-	
aways	52,378,000
Project T-10, Fulton Street Extension	
from Euclid Avenue to Lefferts Avenue	
.....	8,708,000
Dyre Avenue Line in The Bronx	
.....	3,261,000
Passenger Conveyor System for 42nd Street	
Shuttle from Grand Central Station to	
Times Square	4,960,000
Surface Lines—Crosstown Garage	
.....	195,750
Signal Improvements, 3rd Avenue Elevated	
Line north of East 149th Street, and	
Lenox-White Plains Road Line	7,960,000
Station Facilities, Employee Facilities,	
Conversion of Telephone System to Dial	
Operation, Structural Changes at 59th	
Street Power Plant and Miscellaneous	
Capital Improvements	10,548,000
TOTAL	<u><u>\$168,692,750</u></u>

New Equipment and Improvements in the Capital Budget Program for the Calendar Year 1954, Contracts for Which are Being Processed and Are to be Awarded After June 30, 1954

	<i>Estimated Cost</i>
Construction and equipment for 11-car train operation on Flushing Line including expansion of Corona Yard.....	\$ 1,048,000
Project T-11, Culver Line Connection and Rehabilitation	3,515,000
Project T-13k, Acquisition and Rehabilitation of Long Island Railroad from Liberty Avenue Connection to the Rockaways	12,820,000
Project T-10, Fulton Street Extension	3,545,000
Project T-13a, DeKalb Avenue Reconstruction for additional trains on 4th Avenue-Manhattan Bridge Lines in Brooklyn.....	12,700,000
3rd Avenue Elevated Line, Signaling of local tracks north of 149th Street.....	1,630,000
Passenger Conveyor System for 42nd Street Shuttle from Grand Central Station to Times Square	4,960,000
Sliding platform for gap fillers including signal work, IRT Division	1,491,000
Miscellaneous Capital Improvements	3,300,000
TOTAL	\$ 45,059,000

The following summary describes the major projects of the Authority's Engineering Department during the fiscal year ended June 30, 1954.

Flushing Line—Station Platform Extension at Hunters Point Ave., Queens.



Flushing Line—IRT Division

The Flushing Line of the IRT Division provides service to a rapidly growing section of Queens. Construction is now under way on the extension of the station platforms of the Flushing Line to permit an increase in service of 22% by increasing the train length from nine cars to eleven cars. The major part of this improvement, including the installation of a modern central traffic control signal system, is now under contract. This project, including the construction of additional storage facilities in the Corona Yard for the additional cars required for the increased service, is scheduled for initial operation early in 1956.

The total estimated cost of the Flushing Line improvement is \$28,465,000.

Project T-11; Culver Line Construction and Rehabilitation

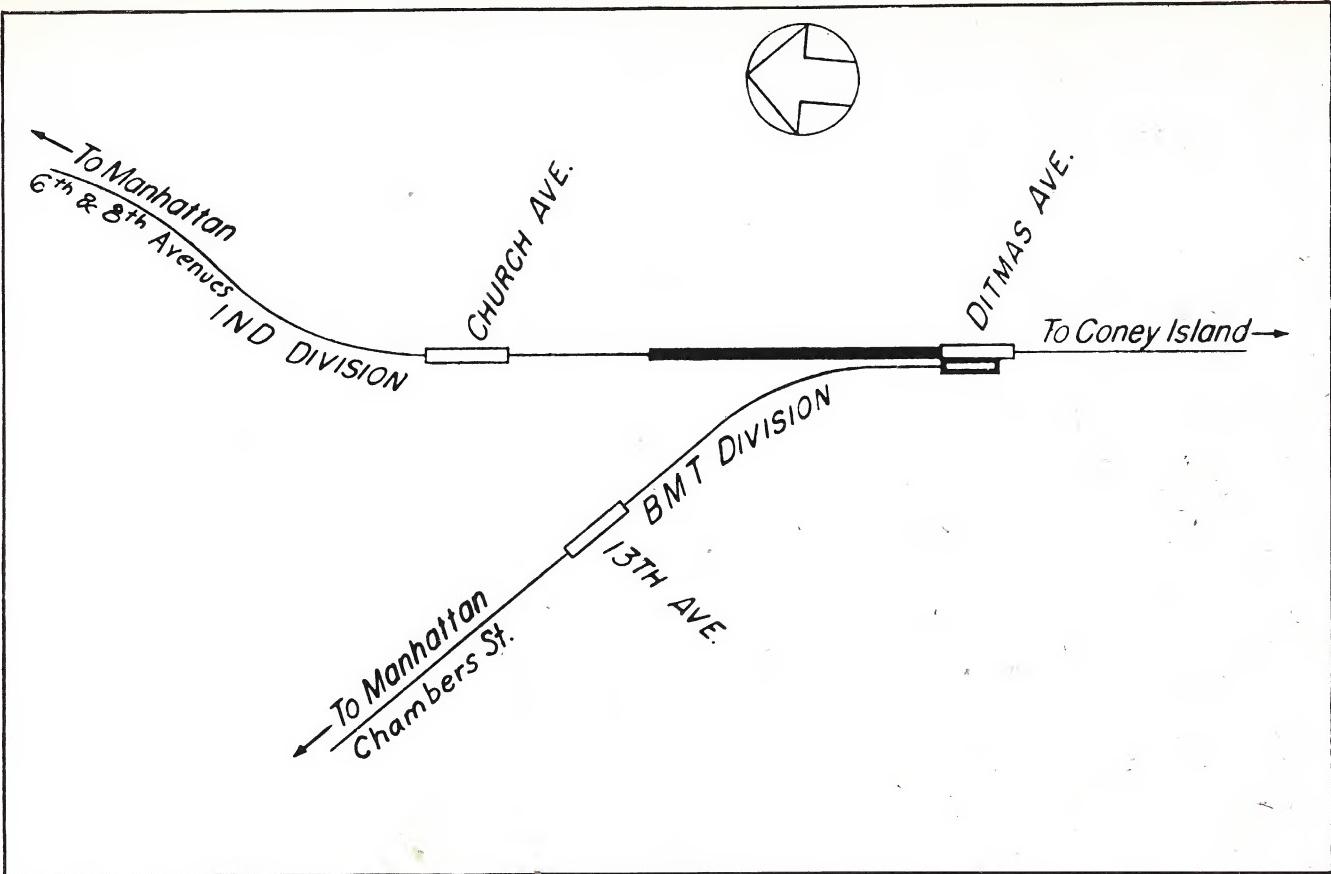
This improvement, which is substantially completed, is expected to be placed in service during the latter half of 1954* and will link the IND-Sixth Avenue Line now terminating at Church Avenue, Brooklyn, to the older BMT-Culver Line which now runs from Coney Island to Chambers Street, Manhattan. The "link-up" will permit the longest single run on the City's rapid transit system, 26.8 miles. Trains will be routed from Stillwell Avenue in Coney Island through Brooklyn and Manhattan to 205th Street in the Bronx. The completed line will be operated as part of the Independent Division. Contracts for the remaining signal work and contracts to complete the Culver Yard will be awarded in the latter part of 1954.

The total estimated cost of the Culver Line project is \$28,155,000.

Project T-27; Queens Boulevard—60th Street Tunnel Connection

The connection of the Queens Boulevard-IND Line to the 60th Street-BMT Tunnel at Queens Plaza will permit utilization of presently unused capacity of this tunnel and unused capacity of the

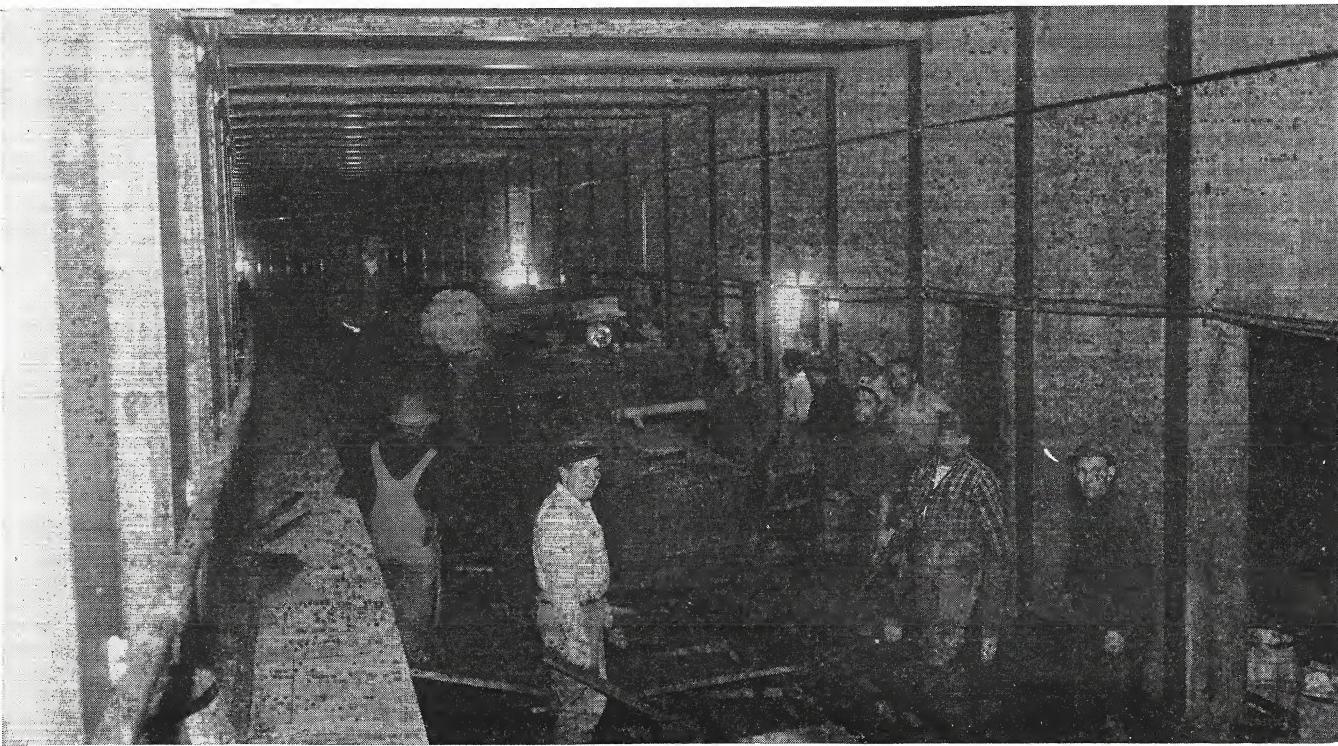
* Placed in service on October 30, 1954.

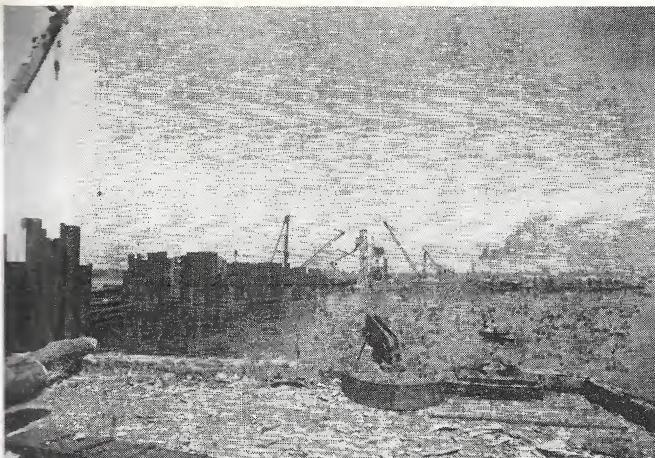


Culver Line Connection between the IND and BMT Division tracks at Ditmas Avenue, with connection from West End BMT Line to Ditmas Avenue. This connection links

the IND and BMT Divisions and permits IND operation to Coney Island. A shuttle will also operate from Ditmas Avenue to the West End Line, BMT.

Queens Boulevard—60th St. Tunnel Connection—Concreting of Trackway, Type II track.





Rockaway Line—Cofferdams for Bridge approach trestle, and Floating Concrete Plant.



Rockaway Line—View showing Floating Concrete Plant placing Tremie concrete in Cofferdam.

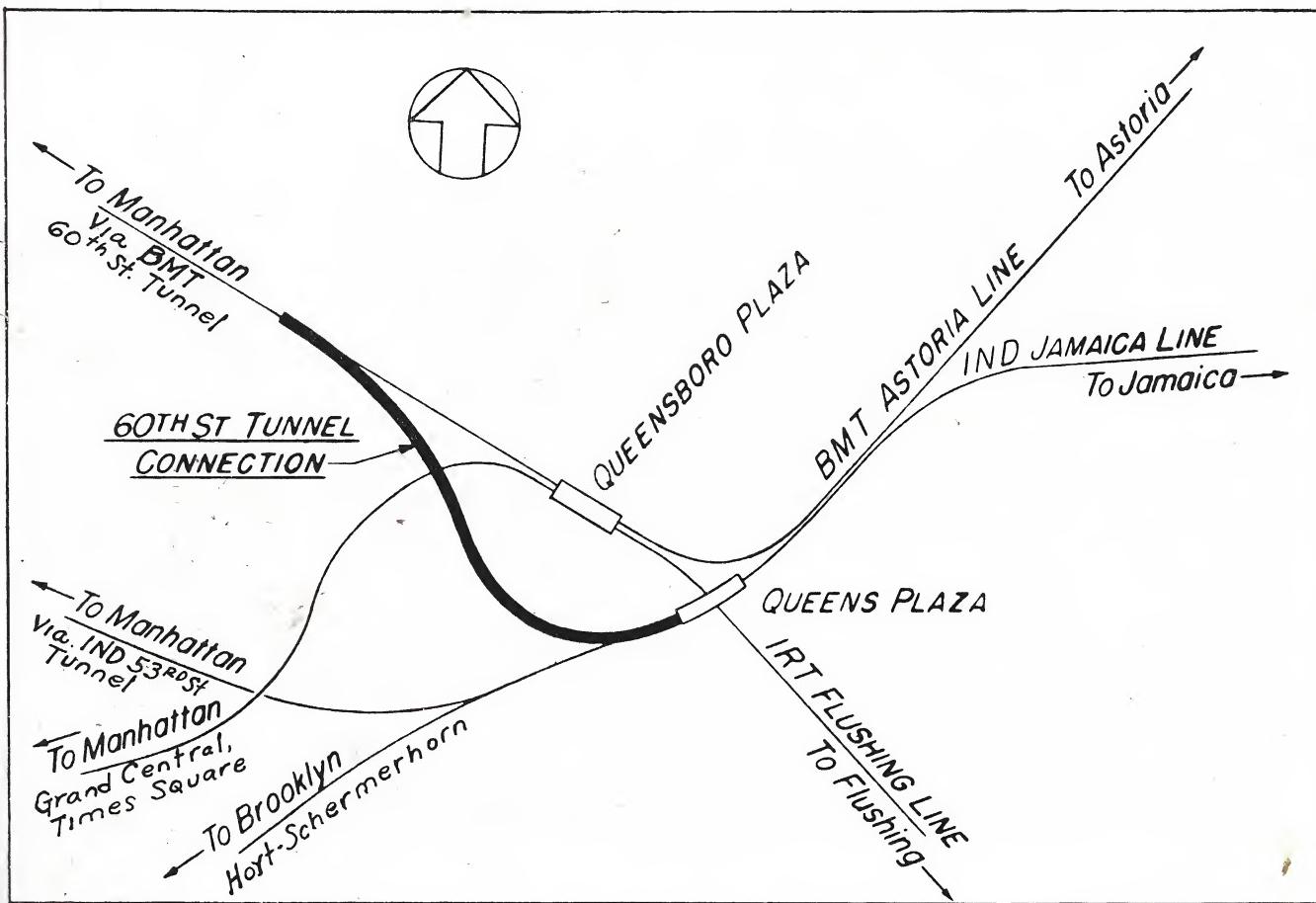
local tracks of the Queens Boulevard-IND Line and allow BMT trains to run from Manhattan to Jamaica via BMT and IND Lines. This improvement will enable an increase in service of 15 trains per hour, between downtown Manhattan and Jamaica, Queens. The subway construction has been com-

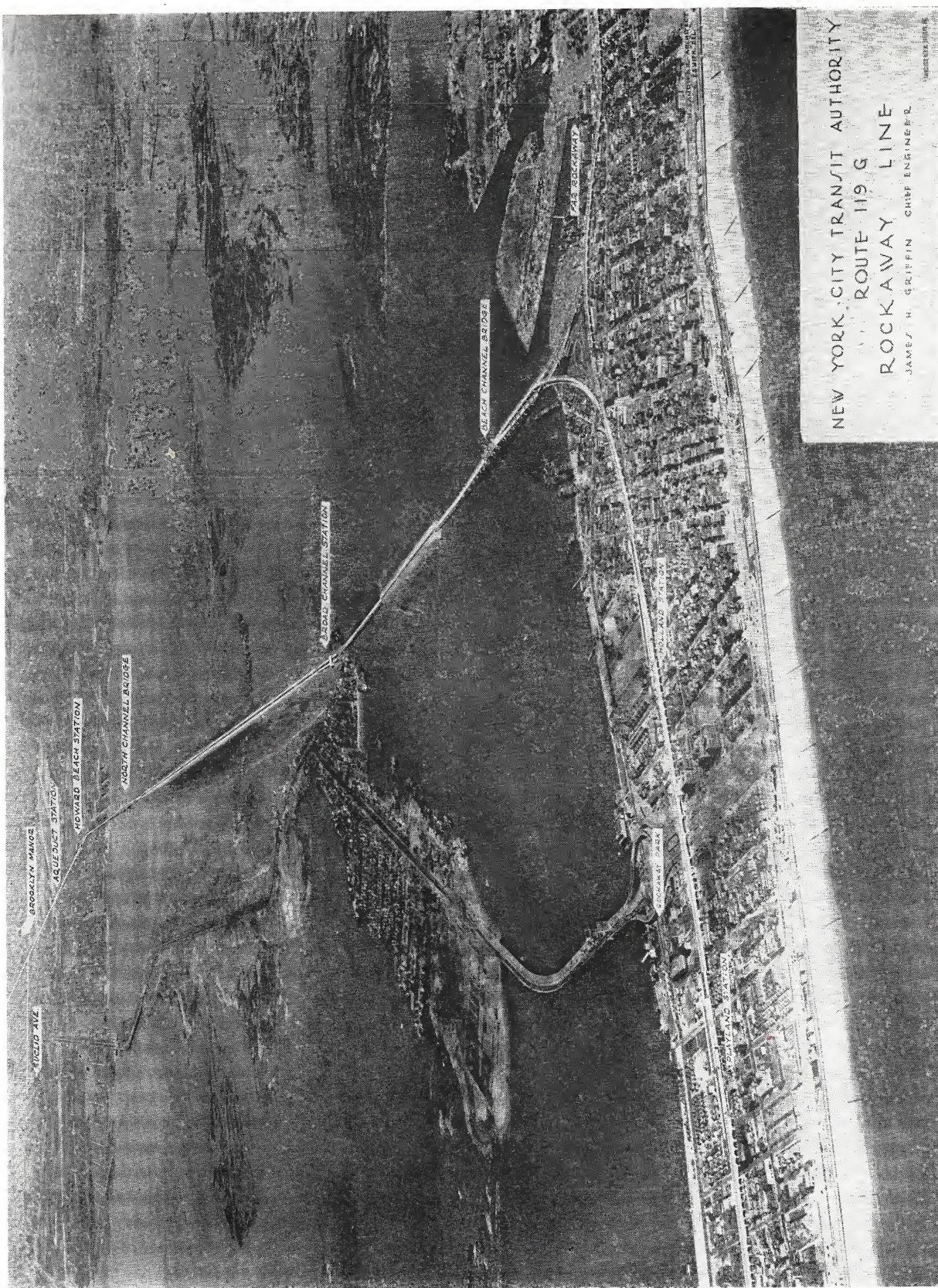
pleted and all contracts for equipment have been awarded. It is expected that initial revenue operation can be started in January 1956.

The total estimated cost of the Queens Boulevard-60th Street Tunnel Connection project is \$24,062,000.

Queens Boulevard—60th Street Tunnel Connection linking BMT and IND Divisions at Queens Plaza will permit

additional trains on the IND Queens Line via the 60th Street Tunnels.





Rockaway Line—Aerial view of Project.

Project T-18k; Rockaway Line, Liberty Avenue to the Rockaways

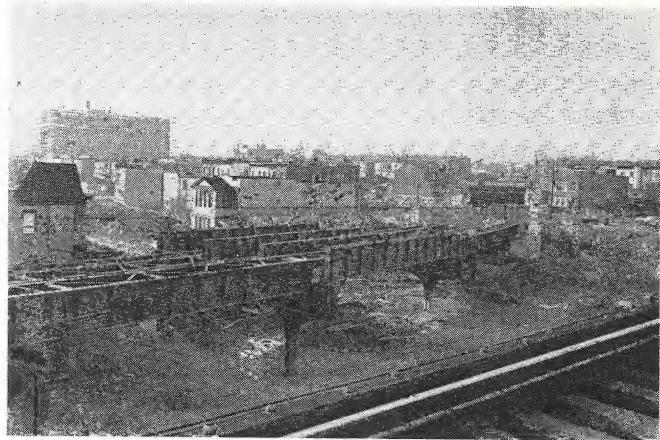
Construction and rehabilitation of the Rockaway Line from Liberty Avenue to the Rockaways is now under way. This will provide a rapid transit link from the Rockaway Peninsula to downtown Brooklyn, Queens, Manhattan and The Bronx via the Independent Division.

At the close of the fiscal year ended June 30, 1954, appropriations for acquiring necessary property and for construction contracts for this project amounted to \$23,576,000. During the latter half of the calendar year 1954, contracts estimated to cost \$13,862,000 are scheduled to be awarded. In 1955, contracts to complete this improvement, estimated to cost \$14,940,000 are scheduled to be awarded.

The total estimated cost of Project T-18k is \$52,378,000.

Initial revenue operation via the IND Fulton Street-Liberty Avenue Line and the Rockaway Line to Far Rockaway and Rockaway Park is tentatively planned for the summer of 1956.

Rockaway Line from Brooklyn Manor (Jamaica Avenue) to Far Rockaway and Rockaway Park. The addition of the Rockaway Line to the NYCTS will permit extension of IND service to the Rockaway Peninsula.

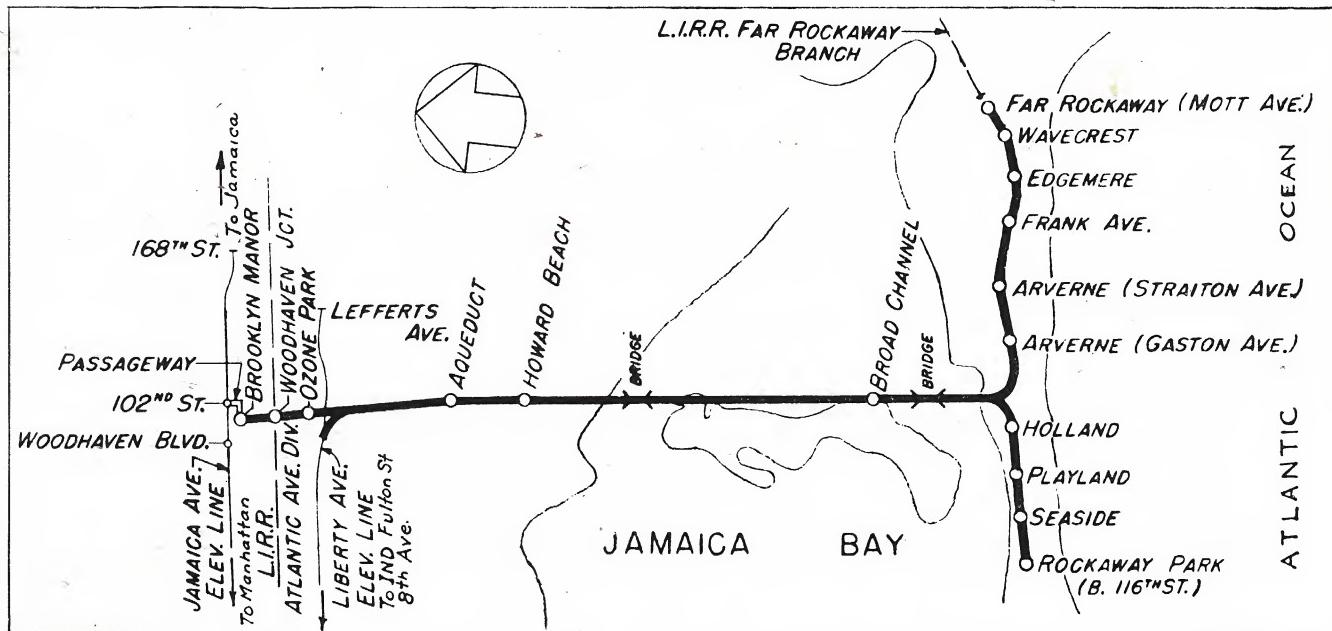


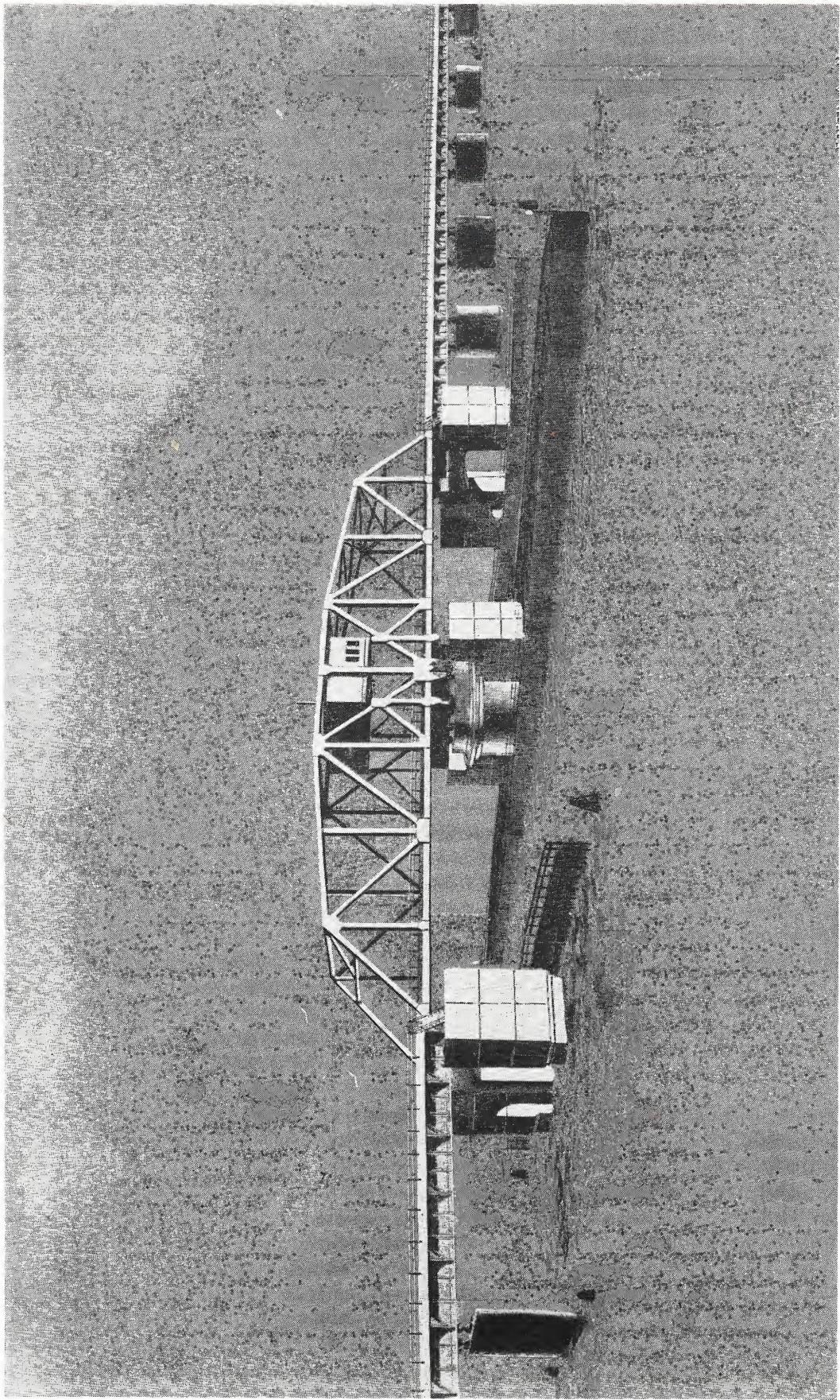
Fulton St. Extension—Subway Portal and Ramp Construction for connection of IND Fulton St. Subway to BMT Liberty Avenue Elevated Line.

Project T-10; Fulton Street Extension, IND Division

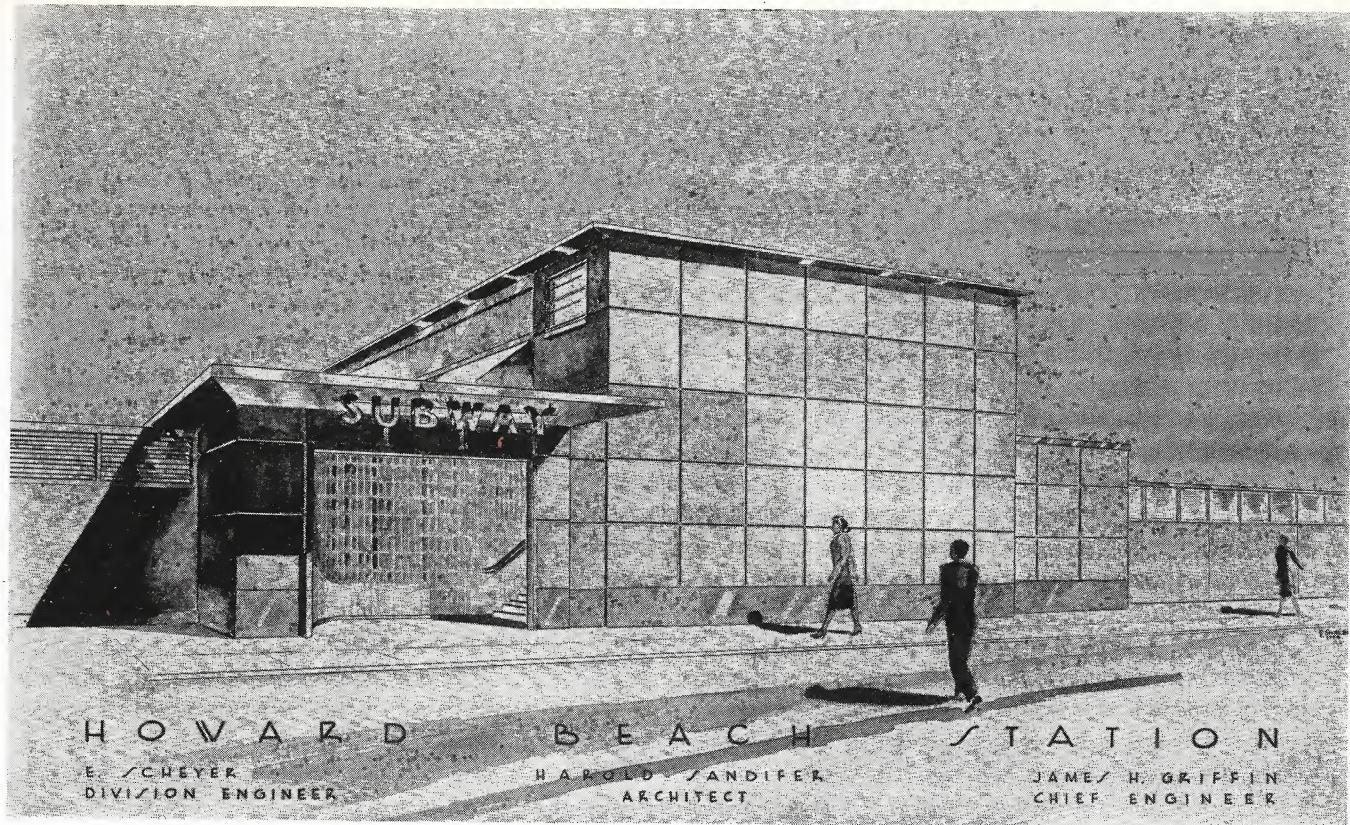
This project will permit extension of the IND Fulton Street Line via the Liberty Avenue elevated line from its present terminal at Euclid Avenue to Lefferts Avenue. Construction of the new ramp connection between the Euclid Avenue Station and the Hudson (80th) Street station on the Liberty Avenue Elevated Line, is now nearing completion.

Through express service will be provided from stations on the Liberty Avenue line to downtown Brooklyn, Manhattan, and The Bronx. Present pas-



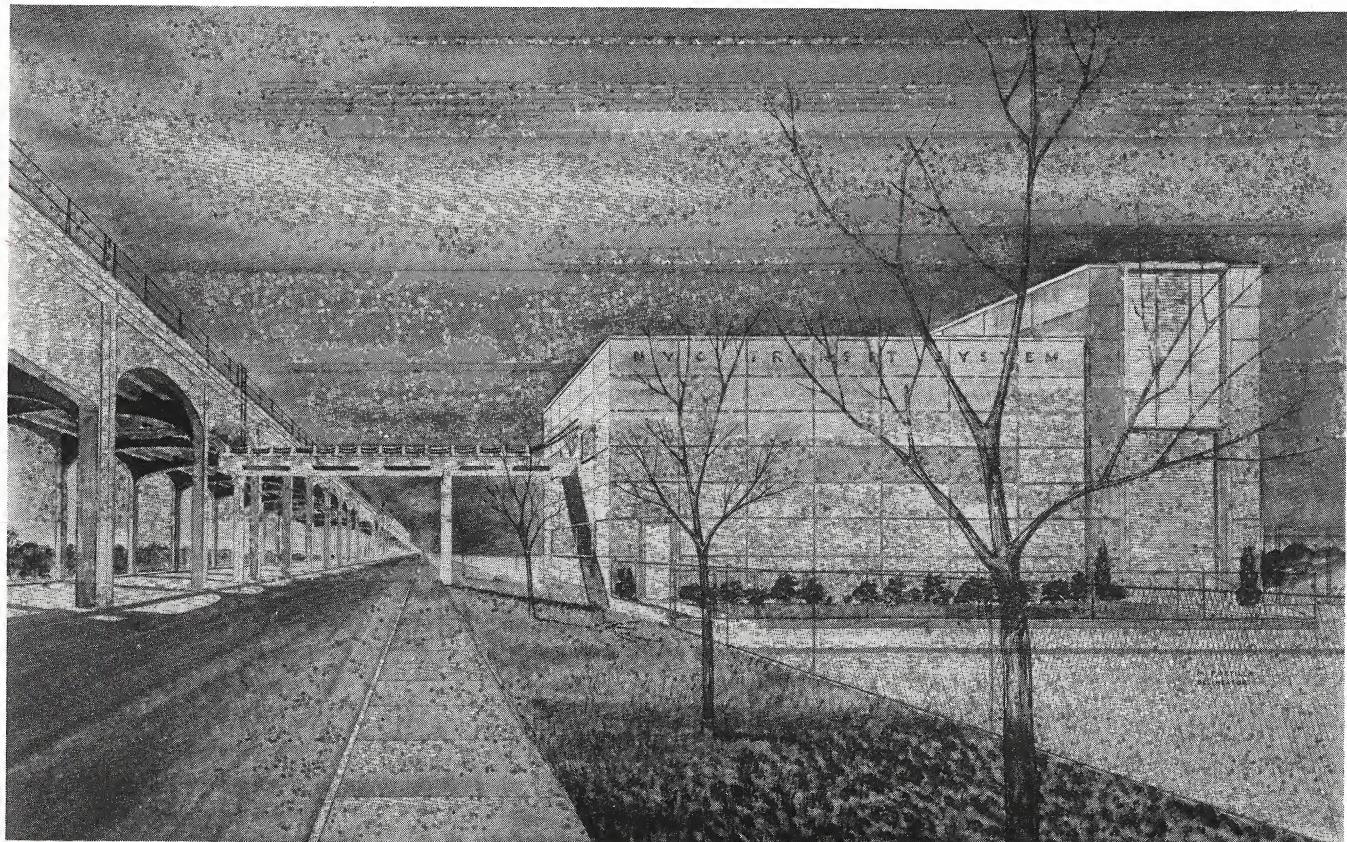


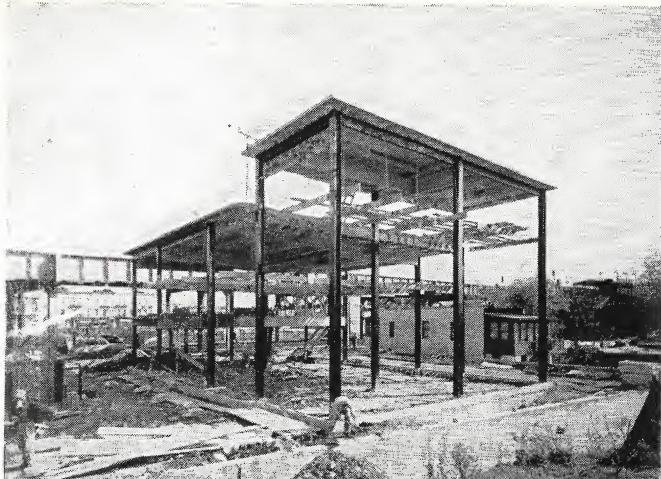
Rockaway Line—Beach Channel Bridge—Architects Rendering.



Rockaway Line—Howard Beach Station—Architects Rendering.

Rockaway Line—Edgemere Substation—Architects Rendering.





Fulton St. Extension—Liberty Avenue Substation building under construction.

senger transfer at East New York and Rockaway Avenue will be eliminated.

Eight 14th Street-Canarsie line trains now operating to Lefferts Avenue via the 14th Street Line and Liberty Avenue Line will be rerouted to provide increased service on the Canarsie Line between East New York and Rockaway Parkway.

The connection from the Liberty Avenue Line to the recently acquired Rockaway Line east of Rockaway Boulevard, will permit extension of New York City Transit System service to the Rockaways via the IND Liberty Avenue-Fulton Street Line

Fulton Street Extension from the present terminal at Euclid Avenue, Brooklyn, will extend the Fulton St. IND Line to Lefferts Avenue, Queens, via the Liberty Avenue BMT Elevated Line. When IND operation is effected, the

from downtown Brooklyn, Manhattan and The Bronx.

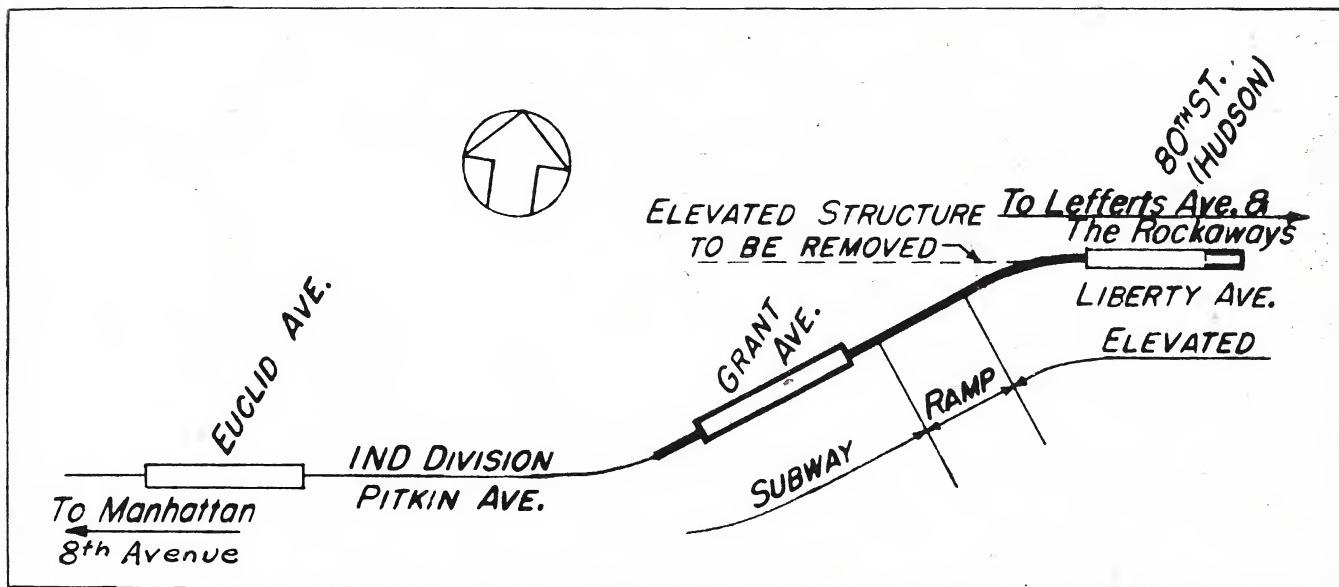
The old BMT-Pitkin Avenue elevated structure between Rockaway Avenue in East New York to a point west of 80th Street on Liberty Avenue will be demolished upon completion of Project T-10, thus improving the entire Pitkin Avenue area, and enhancing real estate values.

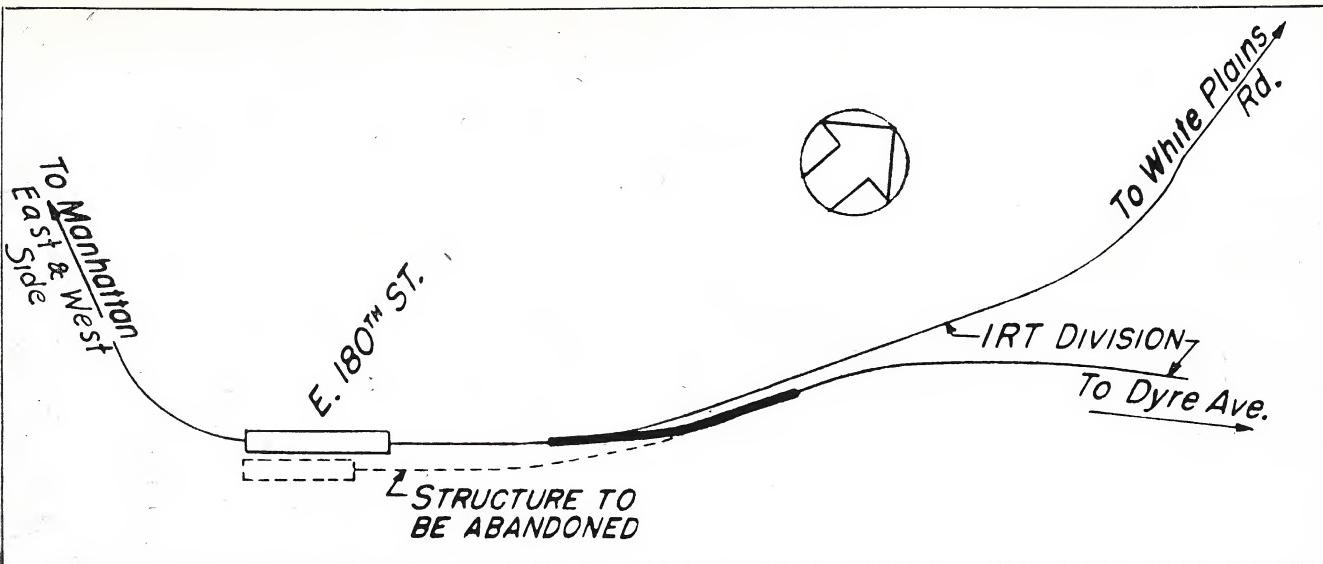
Station platforms on the Liberty Avenue Line will be lengthened to accommodate the longer IND type trains. A new subway station on the ramp connection between Euclid Avenue and Hudson Street is under construction at Grant Avenue near Pitkin Avenue replacing the existing Grant Avenue elevated station on Liberty Avenue.

At the close of the fiscal year ended June 30, 1954, appropriations for real estate, and construction and equipment contracts amounted to \$3,963,000. During the latter half of the calendar year 1954, contracts estimated to cost \$3,765,000, for which plans and specifications were in progress during the first half of the year, are scheduled for award. In 1955, contracts estimated at \$980,000 necessary to complete this project are scheduled.

The total estimated cost of Project T-10 is \$8,708,000. Initial revenue operation is planned for the early part of 1956.

old BMT Pitkin Avenue Elevated Structure between Rockaway Avenue in East New York and a point west of 80th Street Station on Liberty Avenue will be demolished.





Dyre Avenue Line Connection to the White Plains Road Line north of East 180th Street in The Bronx, provides

for through service of Dyre Avenue Line trains to east and west side lines of the IRT Division.

Dyre Avenue Line, The Bronx

The connection between the White Plains Road Line and the Dyre Avenue Line north of East 180th Street will provide through service to east and west side IRT lines for the Dyre Avenue Line area upon completion of this project. For improved operation, crossovers and layup tracks for storage of 80 cars have been completed except for signal work. The signal work was in progress during the fiscal year ended June 30, 1954.

The total cost of this project including layup tracks is estimated to be \$3,261,000. It is expected that this project will be completed in the latter half of 1954.

Conversion of the IRT 42nd Street Shuttle To A Passenger Belt Conveyor System

Under this project it is proposed to install a belt conveyor system to provide continuous two-way transportation between Times Square and Grand Central to replace the present shuttle. Passengers will walk onto a moving platform belt and step into small cars which parallel the platform in a continuous stream. Both platform and cars will move at the same rate of speed, one and one-half miles per hour. Once past the loading platform, the cars will accelerate to a speed of 15 miles per hour and will

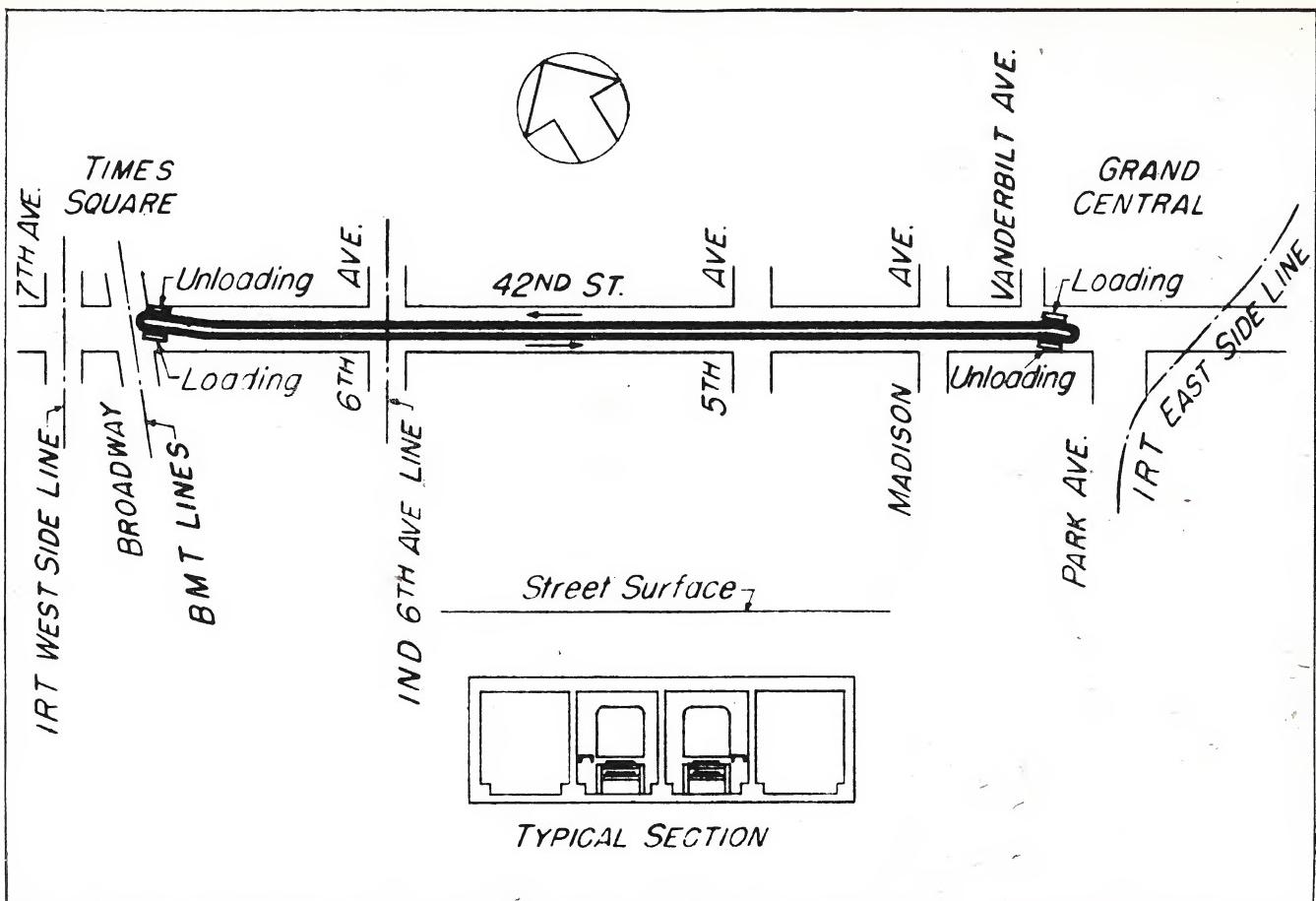
decelerate at the other end to the speed of the unloading platform. Cars will pass the loading point at the rate of 19 per minute and will be able to accommodate 16,000 passengers per hour in each direction.

Plans for this work have been in preparation during the fiscal year ended June 30, 1954 and contracts for the structural work, conveyor belts, cars, machinery and lighting are scheduled to be awarded in the latter half of 1954. The contracts for the remainder of the work will be awarded in 1955.

The total estimated cost of this project is \$4,960,000 and it is expected that the conversion and new installations will be completed in the summer of 1957.

Conversion of the Crosstown Trolley Coach Depot To A Bus Garage at Commercial and Box Streets, Brooklyn

Conversion of the Crosstown trolley coach depot to a bus garage is necessary as a replacement for the Maspeth Garage which will be demolished to make way for construction of the Queens Midtown Expressway. Contracts for conversion of the Crosstown depot to a bus garage estimated to cost \$195,750 were awarded in June, 1954 and the work is expected to be completed early in 1955.



IRT 42nd Street Passenger Conveyor System. The present shuttle is to be altered and a belt conveyor system with small passenger cars installed to provide continuous

transportation of passengers in both directions between Times Square and Grand Central Stations.

Signal System Improvements

Contracts totalling \$1,287,000 for the purchase of signal cable and material for signaling local tracks of the 3rd Avenue Elevated Line north of 149th Street to Gun Hill Road were progressed during the fiscal year ended June 30, 1954. A contract for the installation of this equipment, estimated to cost \$1,680,000, is scheduled to be awarded in the latter half of 1954. The total estimated cost of this project is \$2,967,000 and completion is scheduled for 1955.

Signaling of the White Plains Road Line middle track between Brook Avenue and 241st Street and the two tracks between Grand Concourse and Brook Avenue was progressed in the fiscal year ended June 30, 1954. The total estimated cost for this signaling work is \$4,983,000. Completion is expected in the latter half of 1954.

Extension of the signal tower and construction

of the relay room at Church Avenue, IND Division, is necessary for operation of the through service on the Culver Line to Coney Island. The estimated cost of this work is \$10,000 and it is expected that the contract will be awarded and work completed in the latter half of 1954.

*New Mezzanine and Escalator—E. 177th St. Station—
IRT White Plains Rd. Line—The Bronx.*



Station Facilities, Employee Facilities, Conversion of Telephone System To Dial Operation and Miscellaneous Capital Improvements

Station Facilities

At the IRT Grand Central Station, two 4-foot escalators are being installed between the IRT Flushing Line and Lexington Avenue Line. A contract for the purchase of these escalators at a cost of \$136,500 was awarded in 1950 and a contract for the necessary construction work amounting to \$1,225,000 was awarded in 1951. This work was in progress during the fiscal year ended June 30, 1954 and completion is expected in August, 1954.*

At the north end of the East 177th Street-Boston Road IRT Station of the White Plains Road Line in The Bronx, a new station mezzanine and passenger facilities, including one 2-foot passenger escalator were recently completed.** The contract for the escalator amounting to \$70,250 and the contract for the necessary construction work amounting to \$339,000 were awarded in 1951.

To relieve congestion at the Marcy Avenue Station of the Broadway Elevated Line, which is also the terminus of three bus lines, in the Borough of Brooklyn, a contract amounting to \$129,000 for the widening of the north platform and for the construction of an additional stairway on the north side of the station was awarded in 1953. The work was completed and the new facilities were placed in service on April 13, 1954.

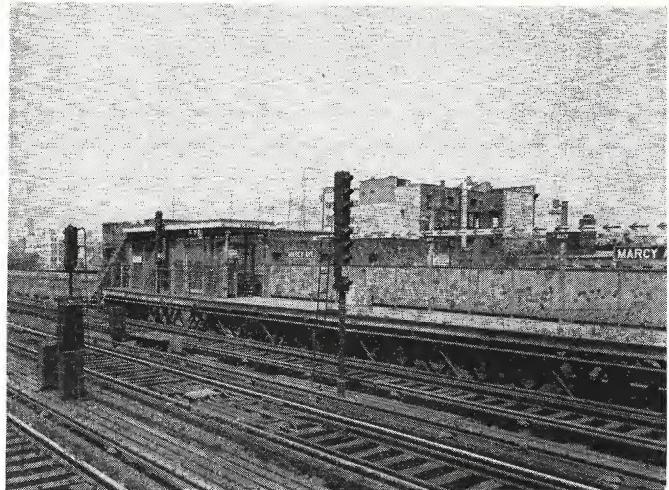
A contract was awarded during the fiscal year ended June 30, 1954, for fluorescent lighting at Grand Central Station on the Lexington Avenue Line, IRT Division. The estimated cost of this work is \$452,500 and it is expected to be completed in the latter part of 1954.***

During the fiscal year ended June 30, 1954,

* This installation was completed and the facilities placed in service on August 9, 1954.

** This installation was completed and the facilities placed in service on July 21, 1954.

*** A portion of the new fluorescent lighting at Grand Central IRT Station was placed in service on August 16, 1954.



New Stairways at N. end of Marcy Avenue Station, BMT Jamaica Line.

plans and specifications were in progress for a contract for sliding platforms for gap fillers at 14th Street, Brooklyn Bridge and South Ferry Stations, together with the necessary signal changes. Award of this contract is scheduled for the latter half of 1954 at an estimated cost of \$1,491,000.

Employee Facilities

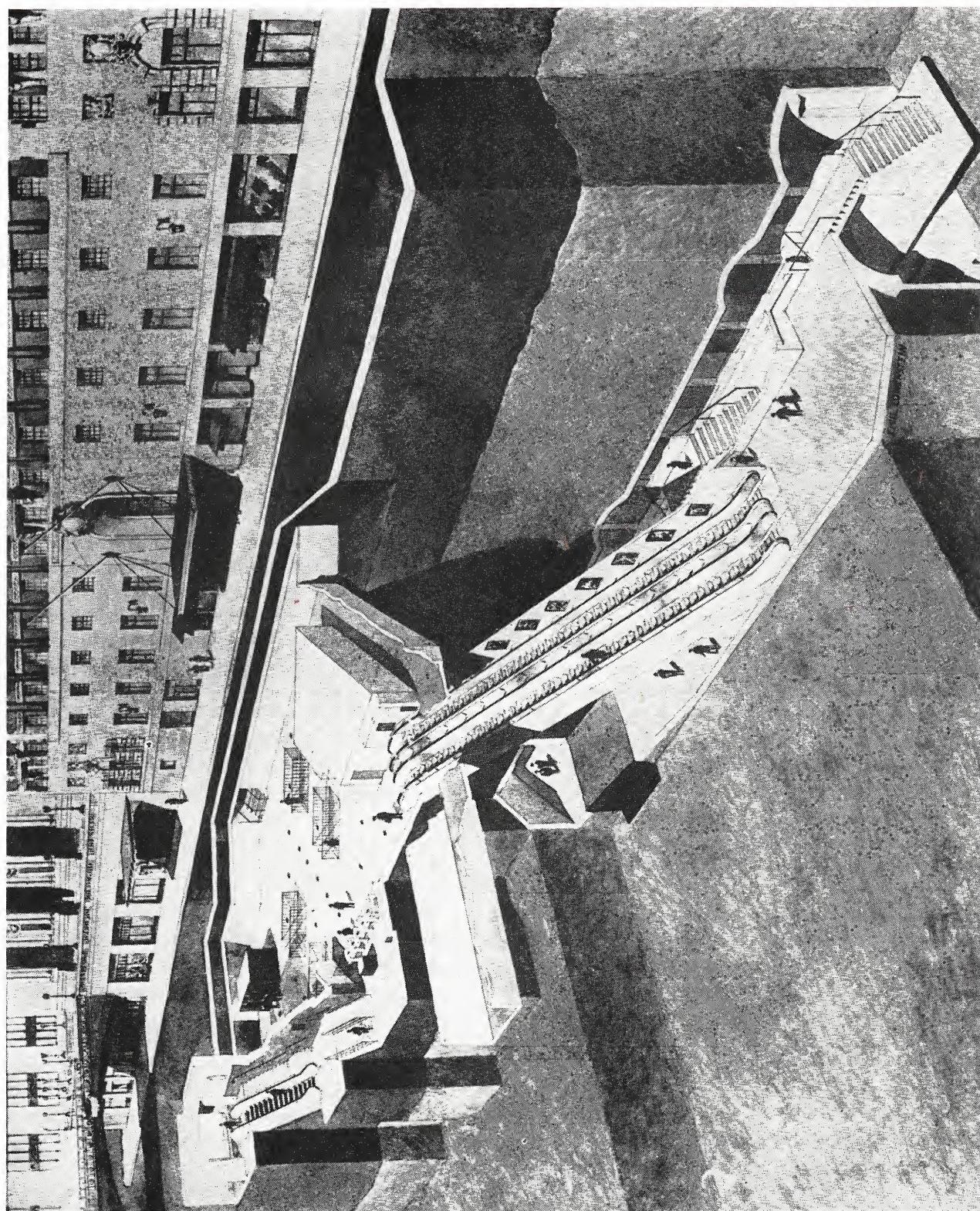
A contract for crew quarters for signal and power maintainers at six locations, and for transportation crew quarters at Stillwell Avenue terminal for Culver Line IND operation has been awarded at an estimated cost of \$120,500 and the work is expected to be completed in 1955.

Telephone System

Conversion of the Authority's telephone system from manual to automatic operation is in progress. Steps I and II have been completed in previous years at a cost of \$571,500. Contracts for Step III totalling approximately \$200,000 were awarded during the fiscal year ended June 30, 1954 and are now substantially completed.

Miscellaneous Capital Improvements

A program of miscellaneous capital improvements including many small items needed to improve present transit installations and replace indi-



Grand Central Station, IRT Div.—Cutaway view of new Escalator installations between Lexington Avenue level and Queensboro level.

vidual units or portions of property has been in progress during the fiscal year ended June 30, 1954. Some of these items are now being processed by the Engineering Department and will be placed under contract in the latter half of 1954.

Miscellaneous Projects

Necessary Work Due to the Construction of the Harlem River Drive

During the fiscal year ended June 30, 1954, two contracts for altering the emergency exit at 131st Street and Lexington Avenue and for altering the water lines, constructing fence and other miscellaneous work at the IRT Division-147th Street Yard have been awarded, at an estimated cost of \$121,150.

Contracts for other work to be done in the 147th Street Yard to accommodate construction of the Harlem River Drive Improvement are in preparation and will be awarded in the latter half of 1954 and the first half of 1955.

The cost of this work will be defrayed from a condemnation award, in the sum of \$2,295,000 granted to the Authority on account of the construction of the Harlem River Drive.

Transportation Building

In 1953, contracts aggregating \$189,400 were awarded for completing installations and finishing space on the first floor of the Transportation Building at 370 Jay Street, Brooklyn, to be used as a banking area.

This project was completed and The National City Bank, Jay Street Branch, opened its offices for business on May 17, 1954.

Bus Terminal At Main Street, Flushing

Plans for a Flushing Bus terminal with an underground connection to the Main Street Terminal Station of the Flushing Line, IRT Division are under study and consideration by the Authority and the Board of Estimate.



New Automatic Dial Telephone Switchboard—370 Jay Street Building.

A firm of real estate developers, has proposed to construct and turn over to the City a \$4,000,000 bus terminal consisting of a basement and two-story bus terminal building at Roosevelt Avenue and Union Street, Flushing. A \$1,500,000 subsurface passageway 1,000 feet in length with a moving sidewalk, or "speedwalk" would extend under Roosevelt Avenue from the proposed bus terminal to the Main Street subway station. These new facilities would be constructed and their costs borne by the development company who would receive rentals from tenants in the building and the Transit Authority would operate and maintain the terminal under an agreement between the City, the Authority, and the company. Consummation of the project would end the present plight of long lines of subway and bus commuters who must now wait for their buses in the open in all kinds of weather.

Jamaica Avenue Widening

To permit widening of Jamaica Avenue by the Borough President of Brooklyn, a contract for the alteration of the elevated structure at the intersection of Broadway and Jamaica Avenue to eliminate encumbering roadway columns, was awarded in 1953 and work was completed as of June 30, 1954.

The estimated cost of this project is \$217,000 and funds have been provided for the work in the Capital Budget of the Borough President of Brooklyn.



Jamaica Ave. Widening—Alteration of Elevated Structure at B'way. and Jamaica Ave., Brooklyn, to permit widening of Jamaica Avenue.

DeKalb Avenue Improvement

Plans and specifications are being prepared for the DeKalb Avenue Improvement and reconstruction for additional trains on 4th Avenue, Sea Beach, West End and Brighton Lines over the Manhattan Bridge between Brooklyn and Manhattan. This reconstruction and improvement extends for about three-quarters of a mile along Flatbush Avenue from Concord Street to Fulton Street and along Fulton Street from Flatbush Avenue to Rockwell Place and provides for additional trackage and improved facilities in the DeKalb Avenue-Myrtle Avenue area.

During the fiscal year ended June 30, 1954, plans and specifications for this project have been advanced to the point where a major construction contract can be awarded in the latter part of 1954.

The total estimated cost of the DeKalb Avenue Improvement is \$13,100,000.

PLANNING FOR FUTURE; CAPITAL PROGRAM FOR YEARS 1955 TO 1959

On January 12, 1954, the New York City Transit Authority submitted to the Board of Estimate a Capital Program outlining in detail those capital projects which it proposed for inclusion in Capital Budgets over the next five years. The program was arranged in order of priority of projects as determined by the Authority's Administrative, Operating and Engineering staffs.

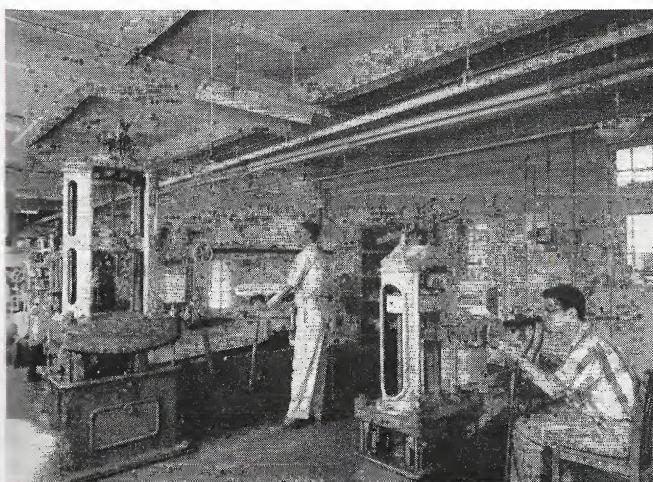
The items included in the proposed program are those most urgently needed for the rehabilitation

and modernization of existing lines and the equipment necessary for the improvement of service. The program also includes the construction and extension of lines to enable the fullest utilization of existing facilities not now used at maximum capacity and which will provide needed transit service to areas of the city not now served by rapid transit.

The needs of the New York City Transit System for capital funds for the replacement of outdated equipment are large and continuing. A five-year program will merely make a start on such items as the replacement of cars, rehabilitation of stations, and modernization of power generating facilities, conversion and distribution facilities, and replacement of outdated signal systems. Funds for these purposes must be made available every year on a carefully scheduled basis, and replacement of outdated and obsolete equipment must be a continuous process so that the system will be provided with new, modern and more economical equipment at all times. This will result in better and more attractive transit service, at lower cost, to the people of the City.

There are listed in Table I, in order of priority, the projects for which capital funds should be made available by the City during the next five years. It includes only work which is essential for the continued safe operations of the system and necessary extensions and improvements and work which can be carried out within the next five years if sufficient funds are made available.

Materials Inspection—Testing Machines, Physical Testing Laboratory.



Priority Projects For Transit Improvements

TABLE I

Priority Order	Project	Estimated Cost in Millions
1	Completion of Projects Under Way	
	IND Fulton St.—Liberty Avenue Line....	\$ 1.1
	Rockaway Line	19.6
	Flushing Line	1.3
2	Rehabilitation and Modernization of Power Plants	176.5
2a	Change of Line Equipment due to Conversion from 25 to 60-cycle power.....	4.4
3	IRT Lexington Avenue Line Rehabilitation and Modernization	52.7
4	DeKalb Avenue Improvement—Chrystie St.—6th Avenue	96.9
5	IRT Nostrand Avenue Line Extension.....	51.7
6	IRT Broadway and Lenox Avenue Line Rehabilitation and Modernization.....	77.6
7	Replacement of 700 IRT Cars Purchased between 1904 and 1909.....	85.7
8	Rehabilitation and Modernization of Signals on BMT Division	5.0
9	Improvements in Station Facilities, Employee Facilities, and various other miscellaneous capital improvements	14.5
		<hr/> \$587.0

TABLE II

Additional Priority Projects for Transit Improvements if Power Generating Plants are Sold

10	Queens Extension—from 57th Street & 6th Avenue, Manhattan to Rego Park (White Pot Junction), Queens.....	\$160.0
11	Replacement of 140 IRT Cars Purchased in 1915	17.1
		<hr/> \$177.1

Note—All the above estimates include costs of engineering and administration, and cars to provide additional service where facilities for such service are constructed.

The above program has been developed by the Authority to show the needs of the transit system for capital funds for the next five years. It represents essential work that is within the capabilities of the Transit Authority's engineering forces, and consultants that can be retained to carry out the projects. It represents work that will make best use of existing facilities which are urgently in need of rehabilitation and a minimum of new construction to provide better service to the people of the City.



Materials Inspection—Chemical Laboratory.

In the pages which follow are descriptions of each of the projects listed above, the reasons for doing the work and the benefits to be derived.

No provision for capital expenditures for the Surface System lines has been made in the proposed Capital Program, since the Authority is required by statute to prepare by July 1, 1955 a plan to divest itself of these properties. If no sale can be consummated additional funds will be needed for Surface Line improvements.

PRIORITY NO. 1

Completion of Projects Under Way

Under Priority No. 1 of Table I have been listed those projects which are now under construction, and for which funds have been authorized for completion. These projects have been previously described.

PRIORITY NO. 2

Rehabilitation and Modernization of Power Plants

The power generating facilities of the New York City Transit System are in an extremely vulnerable condition because of age and intense use for many years with insufficient rehabilitation and modernization. One accidental failure may cripple an entire division for a long period. It is therefore of

paramount importance to continue the present comprehensive program to rehabilitate the power generating facilities of the transit system.

A substantial start has been made on the power plant rehabilitation program at the 59th Street and 74th Street generating plants after comprehensive studies and determinations by engineers of the Authority and expert consultants retained for that purpose. The amount needed over the next five-year period is approximately \$176,500,000. This sum has been included in the Capital Program because of the overriding priority of power plant rehabilitation in any program for the improvement of the transit system.

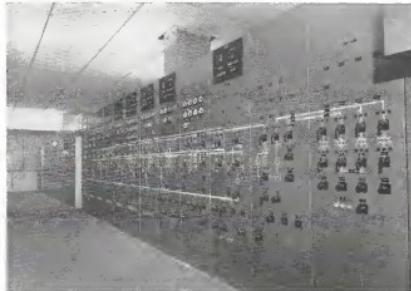
There has been much discussion for many years about the possibility of selling the power generating plants to the Consolidated Edison Company. The sole result of this discussion thus far has been delay in carrying out the rehabilitation program. Further delay serves only to increase the already existing danger of breakdown in the power facilities and consequent interruptions in service as well as increasing the costs of rehabilitation. It is no longer possible to postpone rehabilitation unless the plants are to be sold.

If the generating plants are sold, a portion of the \$176,500,000, which has been budgeted for their rehabilitation will be available for other important transit needs. A program for the expenditure of these funds over the next five years is shown in Table II.

The program of Power Plant and Distribution System Modernization is necessary to make the generation and distribution of power safer, reliable and more economical. The equipment for this program must be supplied by heavy industry and requires a long period for design, manufacture and installation. It is therefore imperative that this work be prosecuted in an orderly manner as rapidly as possible lest a breakdown of the over-age equipment now in service will jeopardize the operation of the Transit System with no hope for immediate relief. The rehabilitation program is based on engineering studies of the Power System made by the J. G. White Engineering Corporation and the Authority's engineers, and includes the major items outlined below.



59th St. Power Plant—Old Control Board.



59th St. Power Plant—Modern Control Board.

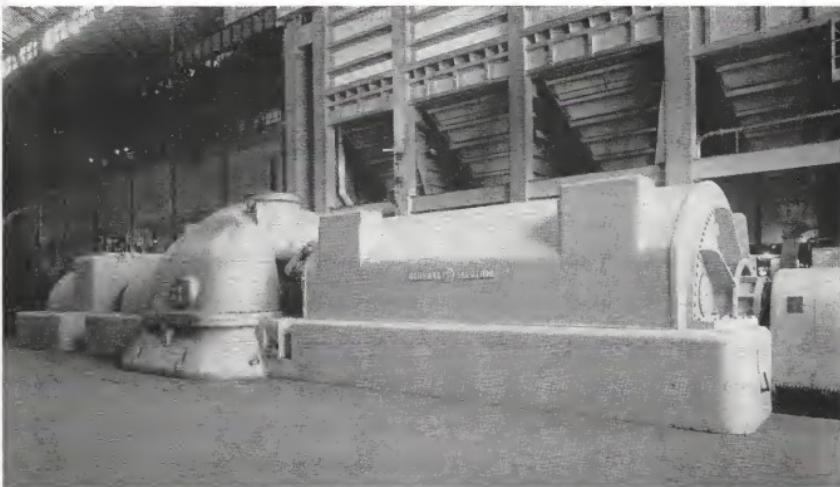
59th Street Power Plant; Coal and Ash Handling Facilities

This item will provide new and modern coal and ash handling equipment at the 59th Street Power Plant to replace the present old and inadequate equipment which has been in service since 1906. The present equipment is not reliable and is difficult and costly to maintain. The proper handling of coal and ashes in a steam generating plant is essential for proper and reliable plant operation.

59th Street Power Plant; 2nd Unit

This item will provide a 25/60-cycle generating unit of 62,500 kw capacity with two 600,000 pounds per hour boilers to supply high pressure steam for the unit and for some of the present low pressure units. This will increase the reliability and economy of generated power at 59th Street and retire from service many of the present low pressure boilers which are old, of small capacity, and uneconomical to operate. Labor costs will thus be reduced.

59th St. Power Plant—New Unit.



74th Street Power Plant; 2nd Unit

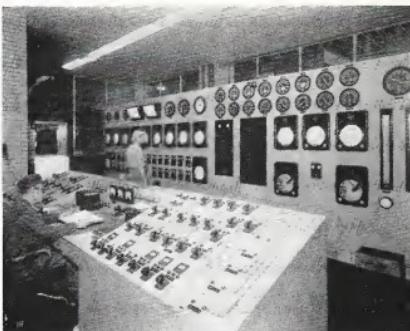
This item will provide a 60-cycle generating unit of 66,000 kw capacity with one 450,000 pounds per hour boiler to supply high pressure steam for the new unit and, in conjunction with the present unit being installed, will supply additional steam for some of the present low pressure units in the plant. This will increase the reliability and economy of generated power at 74th Street and retire from service many of the low pressure boilers which are old, of small capacity, and uneconomical to operate.

Kent Avenue Power Plant Facilities;

1st Unit, One New Boiler, Coal and Ash Handling

The first unit and one new boiler will provide a 60-cycle generating unit with two 600,000 pounds per hour boilers to supply high pressure steam for the new unit and the low pressure units at present in the plant. It will increase the reliability and economy of generated power at Kent Avenue and

59th St. Power Plant—7500 KW Reciprocating Engines.



59th St. Power Plant — Mechanical Control Board for High Pressure Plant.

practically eliminate the present low pressure boiler room with its many, small capacity, and uneconomical boilers. This will effect a considerable saving in labor now necessary to operate and maintain the low pressure plant.

New and modern coal and ash handling equipment will be provided at Kent Avenue to replace the present old and inadequate equipment which has been in service for many years. The present equipment is not reliable, and is difficult and costly to maintain.

Transmission Lines and Substations

Facilities are required for the transmission and distribution of the power generated at the three plants, 59th Street, 74th Street and Kent Avenue. Such facilities will provide a safe, reliable, and efficient means to convey the power generated at the power plants to the substations and at the same time, provide substantial tie line connections between the three power plants for use under emergency conditions. These connections are also necessary to properly and economically load up the new units provided in the three power plants.

The program also includes the construction of 22 2-unit rectifier substations as a first step in the replacement of existing over-age rotary converter substations on the BMT and IRT Divisions.

Estimated Cost of Priority No. 2

59th St. Power Plant; Replace Coal and Ash Handling Facilities	\$ 3,030,000
59th St. Power Plant; 2nd New Generating Unit	31,150,000
74th St. Power Plant; 2nd New Generating Unit	15,500,000
Kent Avenue Power Plant; 1st New Generating Unit	26,450,000
Kent Avenue Power Plant; Replace Coal and Ash Handling Facilities	5,030,000
Transmission Substations, Feeders and Switchhouses	41,230,000
Replacement of Existing Substations.....	33,000,000
Engineering, Administration, etc.	16,110,000
Priority No. 2.....Total.....	\$176,500,000

PRIORITY NO. 3

IRT Lexington Avenue Line

The section of this line from Brooklyn Bridge to Grand Central Station is part of the original 1904 subway. Except for the extension of some of the local platforms little has been done to modernize it. For example, the original signal installations are still in use.

Other sections of the line are nearly of the same age and similarly are in need of rehabilita-

Addition to 74th St. Power Plant.



Kent Ave. Power Plant.

tion and modernization. The sections from Brooklyn Bridge to Atlantic Avenue in Brooklyn, and on the White Plains Road Line to 180th Street in The Bronx were placed in operation prior to 1910. While some of the newer sections are not in need of rehabilitation, their full utilization is limited by conditions on the older sections. The Pelham Line, which dates back to 1920, cannot be used to its full capacity because the local stations in Manhattan accommodate only 8-car trains; also, the express track on the Jerome Avenue Line is not equipped with a modern signal system.

The Lexington Avenue Line is carrying one of the heaviest passenger traffic loads in the city, a load which will be increased when the present and prospective office building construction in and around the Grand Central area is completed. Another important factor requiring an immediate start on rehabilitation of the Lexington Avenue Line is the prospective demolition of the Third Avenue Elevated Line in Manhattan.

After long and careful study by the Executive Director and General Manager, recommendation

was made to the Authority on May 4, 1954 that operation of the Third Avenue Elevated Line south of East 149th Street in The Bronx cease on December 31, 1954, and that it be surrendered to the City for demolition. Public hearings on the matter of abandoning operation on the Third Avenue Line south of East 149th Street were held by the Authority on June 4th and 5th, 1954. After due consideration given to the testimony adduced at these hearings the Authority on July 15, 1954 adopted the recommendations of the Executive Director and General Manager.

The Third Avenue El is the oldest existing elevated line in the City, and is in poor physical condition. Passenger traffic on the line has been declining steadily since 1947. Riding has now dropped to between 90,000 and 100,000 passengers on weekdays. Only 60,000 passengers per day enter the stations south of East 149th Street on this line.

Although it is not necessary to delay abandonment of the Third Avenue Line until the IRT Lexington Avenue Line is completely rehabilitated, such rehabilitation will enable the Lexington Avenue Line to carry the expected additional passenger load from the Third Avenue Elevated Line more satisfactorily and comfortably.

The proposed program for the IRT Lexington Avenue Line includes complete rehabilitation of the signal system from Atlantic Avenue to Grand Central, lengthening of platforms to accommodate 10-car local trains, and construction of the additional trackage and station facilities at Grand Central Station described below. The program will also provide for express service on the Jerome Avenue Line in The Bronx between Burnside Avenue and 149th Street, to relieve the increasing congestion on the IND Concourse Line.

The IRT Grand Central Station on the Lexington Avenue Line must have some relief from its present congestion. The prospective increase in the Flushing Line service previously described will increase the already overtaxed facilities at this station. While the new escalators to be placed in service will aid in diverting and properly channelizing a large portion of the anticipated traffic, congestion on the station platforms

will not be diminished appreciably. The IRT Grand Central Station is presently used by a larger and more concentrated volume of passengers than any other single station on the transit system. Increased business development together with the additional office buildings now under construction and planned in the Grand Central area will in the immediate future and for some time to come, increase the present passenger congestion.

To provide the needed relief, it is proposed to construct lower level reservoir station platforms and necessary auxiliary trackage at the Grand Central Station on the Lexington Avenue Line for trains from The Bronx in the morning rush hours and from Brooklyn in the evening rush hours. Provision will also be made for turning trains to The Bronx and Brooklyn after peak traffic hours and for funnelling additional trains into service at this location should future needs so warrant. This improvement, though difficult and costly to construct, will provide necessary additional platform space and permit operation of more trains through the station.

The improvement will also permit a substantial increase in the present service, afford a considerable measure of relief from the present congestion, and overcome service delays.

Estimated Cost—Priority No. 3

Grand Central Station	\$ 20,000,000
Signal Rehabilitation	18,700,000
Platform Extensions	9,300,000
Engineering, Administration, etc.	4,700,000
Priority No. 3.....Total.....	\$ 52,700,000

PRIORITY NO. 4

DeKalb Avenue Improvement and Program of Minimum Construction for Increased Service

It is expected that construction of the DeKalb Avenue Improvement previously discussed, and for which funds have been allocated in the 1954 Capital Budget, will be started in the latter part of 1954. This project is expected to be completed in 5 to 6 years.

The DeKalb Avenue Improvement is intended to eliminate bottlenecks due to existing grade crossings north of DeKalb Avenue Station where trains are presently switched for Montague Street Tunnel and Nassau Street, and Times Square-Manhattan Bridge services. Because of these bottlenecks present operation between DeKalb Avenue and Manhattan is at the limit of 77 trains per hour.

Elimination of the bottlenecks above mentioned will permit an increase in service between Brooklyn and Manhattan of 18 trains per hour in each direction, 16 trains via Manhattan Bridge and two trains via Montague Street Tunnel. However, unless the facilities described below are also constructed, the DeKalb Avenue Improvement by itself will not permit any increase in service between Brooklyn and Manhattan, because there is not sufficient track capacity available in Manhattan at present to accommodate these additional trains.

Portions of the Trunk Line Construction Program comprising the minimum of construction necessary to utilize the full benefit of the DeKalb Avenue Improvement and permit absorption of the proposed increased train service between Brooklyn and Manhattan, into existing Manhattan lines, are shown on the appended map. They include:

Section A. Proposed subway in Chrystie Street, Manhattan, between Manhattan Bridge and Houston Street; with connections to BMT Lines at Delancey Street, Williamsburgh Bridge and Manhattan Bridge, and to the IND Division Houston Street Line at Houston Street.

Section B. Two-track, deep express tunnel under 6th Avenue between West 4th Street Station and 34th Street Station to connect with the existing four-track structure south and north of these points, respectively.

Section C-1. Two-track subway in 6th Avenue from 52nd Street to 57th Street.

Section D. DeKalb Avenue Improvement.

Construction of Sections A and B above will provide necessary trackage and permit absorption into present lines of 16 trains more per hour in

each direction between Manhattan and Brooklyn via DeKalb Avenue, Manhattan Bridge and Houston Street to 6th Avenue or to 8th Avenue. The additional capacity through DeKalb Avenue Station of 16 trains per hour would be apportioned according to need for increased service on the Sea Beach, West End, 4th Avenue, and Brighton Lines. Also, through a rearrangement of Williamsburgh Bridge-Delancey Street service, 16 trains per hour from the BMT Broadway-Brooklyn Line and its feeders would be routed to midtown Manhattan via the IND Houston Street and Sixth Avenue Lines. This latter service now turns south through the Centre Street Loop and produces congested transfer arrangement at Canal Street for passengers destined for midtown areas and northerly points. Direct northerly routing of a portion of the Williamsburgh Bridge service will eliminate the congested transfer point at Canal Street. Thus, by constructing Sections A and B, there would be available to the public additional capacity of 32 trains per hour to midtown Manhattan made up of 16 trains from DeKalb Avenue and 16 trains from Williamsburgh Bridge.

Section C-1 on 6th Avenue from 52nd Street to 57th Street is also necessary to provide a two-track switchback for turning trains of the proposed Brooklyn-6th Avenue service in midtown; otherwise it would be necessary to run this service to Washington Heights and 168th Street where present turning facilities are available.

It is estimated that it will take five to six years to construct and equip Section D, the DeKalb Avenue Improvement and Section A from Manhattan Bridge to Houston Street with connections to existing lines. Sections B and C-1 could be accomplished in approximately five years.

While provision will be made in the construction of Section A for future extension of the line northerly under Second Avenue, the above program would in no way commit the City or the Authority to construction of the Second Avenue Trunk Line.

The estimated cost of the construction program outlined under this priority in addition to the \$12,700,000 for the DeKalb Avenue Improvement allocated in the 1954 Capital Budget, including

cars and superintendence, is \$96,900,000, as itemized below.

Estimated Cost—Priority No. 4

Section A	\$ 43,900,000
Section B	14,100,000
Section C-1	3,500,000
Section D	400,000
200 Cars	25,000,000
Engineering, Administration, etc.	10,000,000
Priority No. 4.....Total.....	\$ 96,900,000

PRIORITY NO. 6

IRT Broadway—7th Avenue Line

The rehabilitation and modernization of the Broadway-7th Avenue Line, IRT Division, includes a proposal to convert the present local 59th Street Station to an express stop to serve the anticipated heavy traffic needs of the proposed New York Coliseum now under construction, and the expected redevelopment of the adjacent Columbus Circle area.

In conjunction with the existing IND Division express and important junction station at Columbus Circle, the reconstruction and alteration of the IRT local station at 59th Street to an express station will be a logical development. The establishment of a free transfer between the IND and IRT at 59th Street made an express station on the IRT Division even more desirable. The anticipated redevelopment around the Columbus Circle section makes an IRT express station an immediate necessity.

The entire IRT West Side Line is in need of rehabilitation; for example, the signalling on the express tracks dates back to 1904 and 1907. The 96th Street express station with its present cross-over arrangement produces a bottleneck and causes daily delays to service. The station platforms of the express station at 72nd Street are so narrow that they create an ever present hazard. The local stations between 96th Street and Times Square will accommodate only five-car trains, thus limiting all local trains to that inadequate length.

The existing overcrowded and unsatisfactory operating conditions will be aggravated when the new Coliseum and other structures in the Columbus Circle redevelopment are completed.

Some improvements have been made by lengthening station platforms north of 96th Street to accommodate ten-car trains of new type IRT cars, but improvement in the local service is essential.

The plan described below has been developed for the complete rehabilitation of this line in Manhattan to eliminate bottlenecks, permit the lengthening of local trains, and in general to provide for the operation of better, more efficient and more modern rapid transit service.

PRIORITY NO. 5

IRT Nostrand Avenue Line Extension

This project is identified on the appended map as Section S. It is an extension of the IRT Nostrand Avenue Line from its present terminal at Flatbush Avenue to the Sheepshead Bay area, and will serve an important segment of Brooklyn not now served by a rapid transit line. The three mile extension will provide five new stations and furnish direct service via the IRT Division from this area to downtown Brooklyn, Manhattan and The Bronx, and by transfer to Queens.

The Nostrand Avenue Line extension has long appeared in the comprehensive city-wide rapid transit expansion program and is a part of the Trunk Line Construction Program. The present line to Flatbush Avenue was constructed as part of the Dual Subway System in 1915 but was never intended to terminate at Flatbush Avenue. No provision was made for a terminal station at Flatbush Avenue and the present arrangement is a temporary one. With the intensive residential development and construction of housing projects in the Sheepshead Bay area, and the development of Marine Park, this subway extension will serve a rapidly expanding residential and recreational area.

The estimated time of construction is four years and the estimated cost is as follows:

Estimated Cost—Priority No. 5

Construction and Equipment	\$ 39,800,000
60 Cars	7,200,000
Engineering, Administration, etc.	4,700,000
Priority No. 5.....Total.....	\$ 51,700,000

59th Street Improvement—Express Station

The proposed express station on the IRT Division at 59th Street will consist of two side platforms and an island platform between the express tracks, similar to the IRT station at 34th Street and 7th Avenue. All platforms will be constructed of sufficient length to accommodate ten-car trains of new type IRT cars.

Construction of the island express platform, under traffic, will require relocation of the southbound local and express tracks westward of their present position to provide the needed space for the new express platform. The Coliseum architects have been advised of this plan and are making studies for construction of passageways from their building to our present mezzanine and station platforms, so located that, with minor adjustments, they can be adapted to the new station arrangement when the ultimate subway project is completed.

Improved Express Service; 72nd Street Station; 96th Street Station

The improvement at 59th Street Station will be the first step in the much needed rehabilitation of the West Side section of the IRT Division, but will not, in itself, overcome present problems. Without the changes listed below, another express station at 59th Street would merely slow the express service. The bottleneck at 96th Street would remain, and the express station at 72nd Street would still be inadequate and hazardous.

The present 72nd Street express station should be converted to a local station with controls in a free passageway to be constructed under Amsterdam Avenue and Broadway. Transit passengers would enter from the sidewalks rather than from the present cramped entrance building located on an island in the middle of the intersection of Amsterdam Avenue and Broadway, the meeting point of two heavy traffic arteries.

An even more important part of the overall West Side project is the rebuilding of the 96th Street junction express station, now the major cause of congestion and delay on the West Side Lines of the IRT Division.

At present, southbound train service is delayed during the morning rush hours because Broadway locals and expresses approach the station on one track and White Plains' expresses and Lenox Avenue locals on another. These trains must now be switched onto the local and express tracks entering north of the station. The proposed reconstruction at 96th Street will relocate the switches to a position south of the station.

Present delays and disruptions of schedules during the morning rush hours will be reduced by sorting southbound trains through the relocated crossovers after trains leave the 96th Street Station. As part of the project, station platforms will be lengthened and widened, and a new mezzanine will be constructed with entrances at 94th Street.

The new mezzanine and entrances will also permit the elimination of the 91st Street local station and a speeding up of local service. The distance between the next station to the south, the reconstructed 86th Street Station and 96th Street Station will be 1700 feet, which is normal spacing between subway stations in modern planning.

Improved Local Service; Ten-Car Trains

Local train service now provided on the West Side IRT Line is used to capacity, is inadequate, and will become even more overcrowded when the Coliseum development is completed. The conversion of the express station at 72nd Street to a local stop will place an additional burden on local trains. The local station platforms on the West Side Line must be lengthened to permit an increase from the present five-car trains to a minimum of eight-car trains with provision for expansion to ten-car trains.

Signal Rehabilitation

An essential part of the Broadway-7th Avenue Line improvement is the complete rehabilitation of the signal system on the Broadway Line from Times Square to Van Cortlandt Park and on the Lenox Avenue Line from 96th Street to 145th Street. Much of this signal equipment was installed in 1904 and 1907 and is in urgent need of replacement.

The program also includes signalling the center

track on the Broadway Line from 100th Street to 137th Street to provide for express train operation between 96th Street and 137th Street and Broadway.

Estimated Cost—Priority No. 6

The estimated cost of rehabilitation of the Broadway-7th Avenue IRT Line is itemized as follows:

59th Street Express Station	\$ 5,000,000
72nd Street Station Changes	1,000,000
96th Street Improvement	5,170,000
Platform Extensions	19,375,000
132 Additional Cars for Increased Local Service	15,340,000
Expand Van Cortlandt Park Yard for Additional Cars	2,200,000
Signal Rehabilitation and Renewal.....	22,000,000
Engineering, Administration, etc.	7,015,000
Priority No. 6.....Total.....	\$ 77,600,000

PRIORITY NO. 7

Car Replacements

As a general rule the replacement of cars as they become 40 years old can be justified on the grounds of economy, efficiency of operation and maintenance, and the furnishing of a more comfortable, rapid and modern service to the passengers.

In the following table are listed the New York City Transit System subway cars which will be 40 years old, or older, by 1959.

Age Distribution of Subway Cars Which Will Be 40 Years Or Older by 1959

Date Purchased	Number of Cars	Division
1904 - 1905	279	IRT
1907 - 1908	50	IRT
1910 - 1911	322	IRT
1914	100	BMT
1915	12	IRT
1915	100	BMT
1915 - 1916	474	IRT
1916	100	BMT
1916 - 1917	310	IRT
1917	100	BMT
1918	100	BMT
1918 - 1919	474	IRT
1919	100	BMT
Total	2,521	

On the IRT Division there are 651 motor cars purchased from 1904 to 1911 and 288 trailer cars purchased in 1915-1916 equipped for direct high voltage current for all power and control uses. These cars are subject to frequent breakdown, are unsightly and extremely expensive to operate and maintain. Many cars have manual door operation which is both time and labor consuming. These cars are obsolete and their replacement is long overdue.

A high priority has therefore been given to the replacement of these cars, 700 of which have been included in priority Table I items and 140 in Table II. Together with the 120 replacement cars for the IRT Division in the 1954 Capital Budget these new cars will permit the replacement of the oldest and worst cars on the IRT Division. It is only regard for the limitations of funds that has restricted the Authority's recommendation to the replacement of only these cars at this time.

The above table vividly demonstrates the urgency and need for the establishment of a scheduled program for annual replacement of over-age cars.

Estimated Cost—Priority No. 7

700 IRT Cars	\$ 85,700,000
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PRIORITY NO. 8

Rehabilitation of BMT Signal Equipment

While in general signal equipment on BMT Division Lines is not as old as the oldest sections of the IRT, and renewal is not as urgent, there are two antiquated sections of the BMT Division that merit immediate attention.

At the Canarsie Line terminal at Rockaway Parkway Station a mechanical, hand-operated signal interlocking plant is presently in operation. While this plant was installed in 1914 when it was removed from another part of the system, the records do not show its actual age. This is the last remaining hand-operated mechanical signal plant on the transit system. It is obsolete, uneconomical and does not provide all the necessary safety features that are included in modern signal interlocking plants.

The BMT Centre Street loop area signal interlocking is also antiquated. Although it was installed in 1913 the signal interlocking tower was constructed by the Federal Signal Co. which is no longer in existence. Replacement parts for this equipment are very difficult to obtain and in some instances improvising or manufacture of parts is necessary. It does not allow the most efficient operation and is very costly to maintain.

Estimated Cost—Priority No. 8

Signal Equipment—Canarsie Terminal..	\$ 1,500,000
" Centre Street Loop..	3,000,000
Engineering, Administration, etc.	500,000
Priority No. 8.....Total	\$ 5,000,000

PRIORITY NO. 9

Improvements In Station Facilities, Employee Facilities and Various Other Miscellaneous Capital Improvements

Improved station facilities are major items of the rehabilitation and modernization program and include urgently needed elevator and escalator replacements at many locations; new escalators at the IND 74th Street-IRT Roosevelt Avenue Station in Queens; at Delancey Street-Essex Street Station, and at 5th Avenue-53rd Street Station in Manhattan; new station entrances and similar improvements at numerous other locations on the Transit System.

Employee facilities and crew quarters have deteriorated and must be rehabilitated. Present space standards are low but cannot be improved without large expenditures or encroachments upon station platform areas. Within the present spaces rehabilitation and installation of some necessary facilities should be and are being accomplished.

Work train rolling stock is in need of rehabilitation and new multi-purpose equipment must be purchased to increase operating efficiency, lower the cost of work train operations, and release storage space in the yards.

To improve service on the BMT Division, facilities for terminal purposes at 57th Street and 7th Avenue in Manhattan should be improved.

When service is inaugurated through the IND Queens-BMT 60th Street Tunnel Connection the present BMT terminal in upper Manhattan will not be adequate for the augmented service and operation will become difficult unless additional switchback and turning facilities are provided to overcome the congestion that will develop.

Miscellaneous capital expenditures include many comparatively small items needed to improve present installations throughout the system.

Estimated Cost—Priority No. 9

Station Facilities	\$ 5,000,000
Employee Facilities	1,000,000
Work trains	1,000,000
BMT-57th Street Terminal	1,180,000
Miscellaneous Capital Improvements....	5,000,000
Engineering, Administration, etc.	1,320,000
Priority No. 9.....Total.....	\$ 14,500,000

PRIORITY NO. 10

If the Power Generating plants are sold as previously noted, a portion of the funds budgeted for their rehabilitation and modernization will become available for other purposes. It is proposed to apply such funds to the following transit projects.

Queens Extension

This extension is identified on the appended map as the remainder of Section C, beyond the small section included as C-1 in Priority No. 4, together with Sections E-1, O and P. These sections comprise a new line between Rego Park and Woodside in Queens, and via subway to the IND 6th Avenue Line in Manhattan and, in the future, to the proposed new Trunk Line on Second Avenue. The Queens extension will provide an additional link in the service between all boroughs. Section C in 57th Street will provide additional terminal facilities for the additional service to be provided by Sections A, B and D.

There can be no question of the need for expansion of rapid transit service in the Borough of Queens as evidenced by the unusual growth of that Borough in the past decade. It is the fastest grow-

ing Borough of the City, and another line to Queens is needed. The proposed new East River tunnels to be constructed at 76th Street will have sufficient capacity for a future line serving north or east areas of Queens. The proposed line in Queens via the Long Island tracks through Woodside and Rego Park will ultimately permit a connection with the recently acquired Rockaway Line at White Pot Junction (Rego Park) and is a logical development in the comprehensive City-wide plan for expansion of rapid transit facilities. It will provide another link between the Rockaways and midtown Manhattan through Queens.

Estimated Cost—Priority No. 10

Section C—6th Avenue to 2nd Avenue....	\$ 17,600,000
Section E-1	41,400,000
Section O	47,700,000
Section P	13,700,000
200 Cars	25,000,000
Engineering, Administration, etc	14,600,000
Priority No. 10.....Total.....	\$160,000,000

The portions of Priority No. 10 which could be constructed would, of course, depend upon the amount of funds released from Priority No. 2 if the power plants are sold by the City. Certain work in the substations and on the transmission system would still have to be financed, so that only a portion of the \$176,500,000 budgeted under Power Plant Rehabilitation would become available for transit projects under Priority No. 10.

III

RAPID TRANSIT OPERATION AND MAINTENANCE

RAPID TRANSIT SERVICE IMPROVEMENTS

The following improvements and changes in transportation facilities of the Rapid Transit System were made during the fiscal year 1953-1954.

BMT Division

1. The station platform at Marcy Avenue, Broadway-Jamaica Line, was enlarged and additional stairway facilities were provided and made available to the public on April 13, 1954.
2. On December 10, 1953, when revised train schedules became effective, improvement was made in the West End Line service, by discontinuing shuttle service operation between Stillwell Avenue Terminal and Bay Parkway during the AM and PM rush hours and substituting West End service between Stillwell Avenue and Times Square 24 hours per day.
3. Other changes and improvements in service which will be made on the BMT Division in the latter part of 1954 are based on changes in operation of the Culver Line at such time as the IND Division connection at Ditmas Avenue is completed and placed in service. These changes include the following:

- a) When IND Division through service is inaugurated to Stillwell Avenue, the BMT Division will maintain a service between Ditmas Avenue and Chambers Street daily (Mondays to Fridays inclusive) from about 5:30 AM until 8:30 PM with operation via the local tracks and Montague Street Tunnel, except

that during the AM and PM rush hours, this service will make all local stops to 36th Street, and then run express from 36th Street to Chambers Street via the Centre Street Loop tracks on the Manhattan Bridge; return will be via Montague Street Tunnel to Lawrence Street, and express to Pacific Street and to 36th Street, making all remaining stops to Ditmas Avenue.

- b) During the hours from 8:30 PM to 5:30 AM, Mondays to Fridays inclusive and all day Saturdays, Sundays and Holidays, Culver shuttle service will be maintained between Ditmas Avenue and 36th Street-4th Avenue.
- c) At such time as the above change is made in Culver Line service, additional car equipment will become available, and the present plan is to utilize the available cars to make the following improvements in BMT Division service during rush hour periods:
One additional Brighton-Nassau Street express and one additional 4th Avenue-Nassau Street express, composed of six cars each, to supplement the present special express service.

IND Division

4. On the IND Division, effective Tuesday, September 8, 1953, daily except Saturdays and Sundays, eleven-car trains commenced operation on the "E" and "F" lines, Queens. Eleven-car operation was made possible by lengthening of station platforms to 660 feet. The following station platforms were length-

ened for this service: Spring Street, Canal Street, Broadway-East New York, 75th Avenue, Sutphin Boulevard and Ralph Avenue. The operation of eleven-car trains in Queens during AM and PM peak traffic hours has lessened passenger congestion on the Queens Line and afforded more comfortable riding conditions to residents of that Borough.

5. When IND Division service is operated to Stillwell Avenue, Coney Island, operating schedules will be adjusted to furnish the following services:
 - a) "D" Line: 205th Street to Coney Island.
 - b) "F" Line: 179th Street to Broadway-Lafayette St.
 - c) "E" Line: 179th Street to East New York, during rush hours, and to Hudson Terminal during non-rush hours.
 - d) "CC" Concourse Line: Bedford Park to Hudson Terminal, during AM and PM rush hours.
 - e) "A", "AA", "BB" and "GG" services will be operated on the same routes as at present.
 - f) Although schedules have been revised to the extent that the IND Division will be operating to Coney Island, economies will be effected, totalling approximately \$500,000 annually.
6. On May 26, 1953, the center platform between express tracks at the 59th Street Station was placed in daily operation during rush hours. This platform had not been used for passenger operation since the Station was opened in September 1932. The utilization of center platform facilities now serves downtown passengers during the morning rush hour and uptown passengers during the evening rush hour. A loud speaker system was installed with a continuous recording, explaining the new system to the traveling public. In the morning rush hours, train doors are opened on both sides of cars of southbound 6th and 8th Avenue express trains and passengers may detract and entrain by either the center platform or the regular island platform between the ex-

press and local tracks; and vice versa in the evening rush hour. 59th Street is one of the most highly congested junction stations on the IND Division during rush hours, as it is a transfer point to the 7th Avenue-IRT Line, as well as a junction for the 6th and 8th Avenue IND Lines. The institution of the new operating system has greatly relieved passenger congestion at this junction station.

IRT Division

7. Effective October 2, 1953 extension of White Plains Road Line express service from East 180th Street to Gun Hill Road was made possible by rehabilitation of the signal system on all three tracks between East 180th Street and 219th Street. This extended express service eliminates stops at four stations: Bronx Park, Pelham Parkway, Allerton Avenue and Burke Avenue. The new express service reduces running time between Gun Hill Road and East 180th Street by 4 minutes, making a total of 10 minutes reduction in running time between 241st Street and Grand Central due to White Plains Road Line express service.
8. Super-express service during PM rush hour between Times Square and Main Street on the IRT Queensboro (Flushing) Line.
 - a) On September 8, 1953 two super-express trains were added, leaving Times Square at 5:06½ and 5:15½ PM, and making the run from Queensboro Plaza Station to Willets Point Boulevard Station without stops, thus reducing the running time an additional 2 minutes between these points.
 - b) On October 30, 1953 an additional super-express was added leaving Times Square at 5:24½ PM.
 - c) On May 19, 1954 still another super-express was added, leaving Times Square at 5:37½ PM. Three super-express intervals are also scheduled for the AM service. The running time between Times Square and Main Street has

- now been reduced to a minimum of 23 minutes by furnishing this special express service to residents of Queens.
9. Fare controls at Main Street, Flushing, were rearranged in January 1954 to eliminate the old and inconvenient arrangement of change booths. The new arrangement provides more mezzanine space and improved fare control arrangement with two modern booths.
 10. A new stairway and ramp connection between the Lexington Avenue subway and Queensboro (Flushing) subway levels at Grand Central Station was opened on February 13, 1954.
 11. Dyre Avenue Line shuttle was equipped with steel subway cars in place of wooden elevated cars effective April 1, 1954.
 12. Bowery Savings Bank escalator to the Grand Central IRT mezzanine was opened for public use effective April 12, 1954.
 13. New escalators between the Lexington Avenue and Flushing Line levels at the Grand Central Station, IRT, are to be placed in service during the summer of 1954.*
 14. Changes in Third Avenue Elevated Line schedules, which became effective before June 30, 1954, will permit savings in labor costs of \$52,000 yearly. New schedules will change the hours of operation below 149th Street and 3rd Avenue, from 6:16 AM to 6:03 PM southbound, to 6:43 AM to 5:36 PM southbound.
 15. New Woodlawn and Pelham Bay Line schedule to become effective June 18, 1954 resulting in saving in labor costs of \$11,000 annually.
 16. A new mezzanine and escalator at the 177th Street-West Farms Station on the Lenox-White Plains Road Line will be placed in service during the summer of 1954.** This will improve transportation facilities for passengers traveling to and from the Bronx Zoological Park and also for residents of the area west of the Lenox-White Plains Road Line.

RAPID TRANSIT ROUTES AND SERVICE

The pattern and volume of rapid transit service furnished to the public to and from the principal business area of the City during peak hours of travel is of prime importance to those who use and study public transportation facilities.

This pattern is most readily understood and visualized when shown on a diagrammatic map or flow chart on which are indicated the several routes serving the principal business area. Such a map is appended to this Report as well as a Transit Map showing all rapid transit lines leased from the City of New York and operated by the New York City Transit Authority.

The volume of service over each rapid transit route, measured in cars per peak hour, is shown by the width of line, this width being proportional to the number of cars per peak hour. The map or "flow chart" above referred to indicates in colors, respectively, the BMT Division (yellow), the IRT Division (blue), and the IND Division (red).

Shown on the flow chart are the number of scheduled cars and trains in the morning peak hour into lower Manhattan from upper Manhattan and The Bronx, from Queens and Brooklyn. The number of trains and cars on the several routes is based on the daily operating train schedules and car service in effect in the spring of 1954. Where morning peak hour service operates in both directions on a route, the data in each direction are shown.

On practically all routes entering the principal business area of Manhattan, the operating tracks are used to full capacity, and the service furnished is the maximum possible. The flow chart clearly demonstrates that the solution to the transit problem as related to New York City consists very largely in increasing the capacity of the transit lines on the routes leading into the principal business district of Manhattan.

MAINTENANCE OF WAY AND STRUCTURES

Regular maintenance of the Transit System's Way and Structures requires the services of 7,200

* Placed in service August 9, 1954.

** Placed in service July 21, 1954.

employees of various skills comprising the Bureau of Track and Structures and Bureau of Line Equipment, at an annual budget of about \$34,000,000—\$29,500,000 for labor costs, \$3,500,000 for materials, and about \$1,000,000 for other services.

Bureau Of Track And Structures

Maintenance work on track and structures includes inspection, repair, alterations and additions to the tracks, roadbed, contact rails, power equipment within the trackways, stations, station controls, train yards, power stations, docks, substations and all buildings throughout the system including car and bus repair shops, car inspection shops, bus garages, depots and various other buildings of the Transit System.

The Bureau's Structure Section maintains all elevated and subway structures, including 507 stations, three power houses, 72 substations, 490 emergency exits, 15 inspection and repair shops, six docks, two swing bridges, numerous fixed span bridges, 16 bus garages and depots and other miscellaneous structures and buildings.

The Bureau's Track and Third Rail Section maintains and makes all alterations of the track and roadway proper, including contact rail and its appurtenances. The work covers 726 miles of single track on main lines and 116 miles of single track in yards and barns, or a total of 842 miles of single track on the Rapid Transit lines.

In addition to the above, the section maintains 38 miles of single track of trolley lines and 17 miles of single track on the South Brooklyn Railway. The work on these tracks includes the maintenance of the street pavement within the track area.

In order to keep the rapid transit portion of the system in safe operating condition, it is necessary each year to renew 91,000 railroad ties, 171,000 linear feet of 6" x 8" guard timbers, 854,000 linear feet of 2" x 6" slatting, used to maintain the walks alongside of the tracks, and to renew running rails on 535,000 feet of single track.

Deferred Maintenance

Due to the magnitude of the maintenance work

required on the system, it is necessary to augment normal maintenance forces with additional temporary employees, and to award contracts for deferred maintenance work in order to keep the system in a safe operating condition.

During the past year, a considerable portion of the departments' maintenance activities has been devoted to the Deferred Maintenance Program. This includes extensive track, ties and contact rail renewals, painting and general repairs of both subways and elevated railroad structures.

Deferred maintenance comprises those projects of such magnitude that the regular maintenance forces cannot perform them in addition to their normal work. These projects are performed under contract, or by augmenting the regular maintenance forces with additional temporary employees. Capital Projects in general comprise new facilities, or additions to existing facilities and structures of the transit system.

During the past fiscal year the Deferred Maintenance Program of the Bureau of Track and Structures totalled \$10,591,372. Of this sum, \$6,533,300 was allotted for painting railroad structures, stations and appurtenances; \$2,780,450 for improvement of tracks, covering such items as renewal of ballast and of deteriorated and obsolete jumper cables; and \$1,277,622 for improvement of structures, covering such items as general renewal of wooden station platforms, remodeling station toilet facilities, general repairs to power stations and general repairs to overhead bridges.

Capital Improvements

In addition to the above items, certain renewals and additions are considered as capital expenditures. The Bureau of Track and Structures has been allotted \$2,056,186 in capital funds for various types of new equipment, such as trucks, heavy shop machinery, power tools and other labor saving equipment. These funds also cover the replacement of worn and obsolete contact rail (3rd rail); 600 volt direct current feeder cables; the construction of additional quarters for the employees of the Bureau; and remodeling and improving existing employee facilities.

The work of the Bureau of Track and Structures during 1953-1954 is summarized below.

Track And Structures; Maintenance Work In Progress Or Completed During 1953-1954

Regular Maintenance:

1. Routine repair and replacement of rails, ties and fittings on subway, elevated and surface tracks.
2. Routine repairs to elevated steel structures, stations, tunnels, bridges, shops, power houses and other structures.
3. Large scale repairs to the elevated steel structures of the West End, Culver and Fulton Street Lines.
4. Purchase of specialized equipment to increase efficiency of maintenance crews.
5. Rehabilitation of roofs of Kent Avenue Power Plant and New Lots Inspection Shed.
6. Large scale renewal of wooden platforms on stations of elevated lines.

Deferred Maintenance:

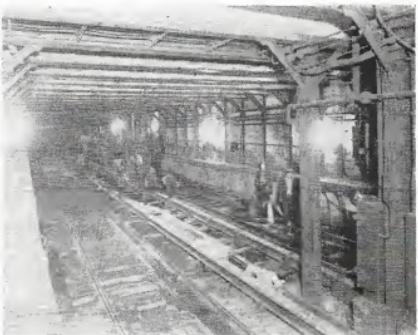
1. Painting 3 track "L" structure, BMT, Broadway-Jamaica Line, between Lexington Avenue and McDougal Street.
2. Painting 3 track "L" structure, BMT, Broadway-Jamaica Line, between Myrtle Avenue and Rodney Street.
3. Painting 3 track "L" structure, BMT, West End Line, between 25th Avenue Station and 79th Street Station.
4. Painting 3 track "L" structure, IRT, 3rd Avenue Line between 161st Street Station and Fordham Road Station.
5. Painting contracts awarded or being prepared totalling approximately \$5,473,400 for other elevated structures of the BMT and IRT; subway stations, car shops and inspection sheds of all divisions.
6. Renewal of ties and fittings, BMT, 4th Avenue Line, between 23rd Street and 57th Street.
7. Renewal of power distribution cables at various locations.

8. Relocation of cross jumper cables at various locations on the BMT elevated lines.
9. Rehabilitation of steel supports for the boilers at BMT Kent Avenue Power Plant.
10. Repair and partial renewal of fenders around center pier of IRT Harlem River swing bridge at 129th Street.
11. Stabilization of sub-grade under roadbed of IRT Nostrand Avenue Line near Newkirk Avenue Station.
12. Recessing stairway handrails of the IRT Grand Central Station, Lexington Avenue Line; and BMT Canal Street Station, Broadway-4th Avenue Line.
13. Reballasting and surfacing tracks in IRT tunnel, Lenox-White Plains Road Line between 110th Street and 145th Street Stations.
14. Reballasting BMT express tracks on the 4th Avenue Subway, between DeKalb Avenue and 36th Street.
15. Levelling tracks at Corona and other inspection sheds.

Capital Improvements

1. Replacement of contact rail between St. Ann's Avenue and East 179th Street, Lenox-White Plains Road Line, IRT.

Waterproofing Subway Structure—Newkirk Ave. Station, IRT.

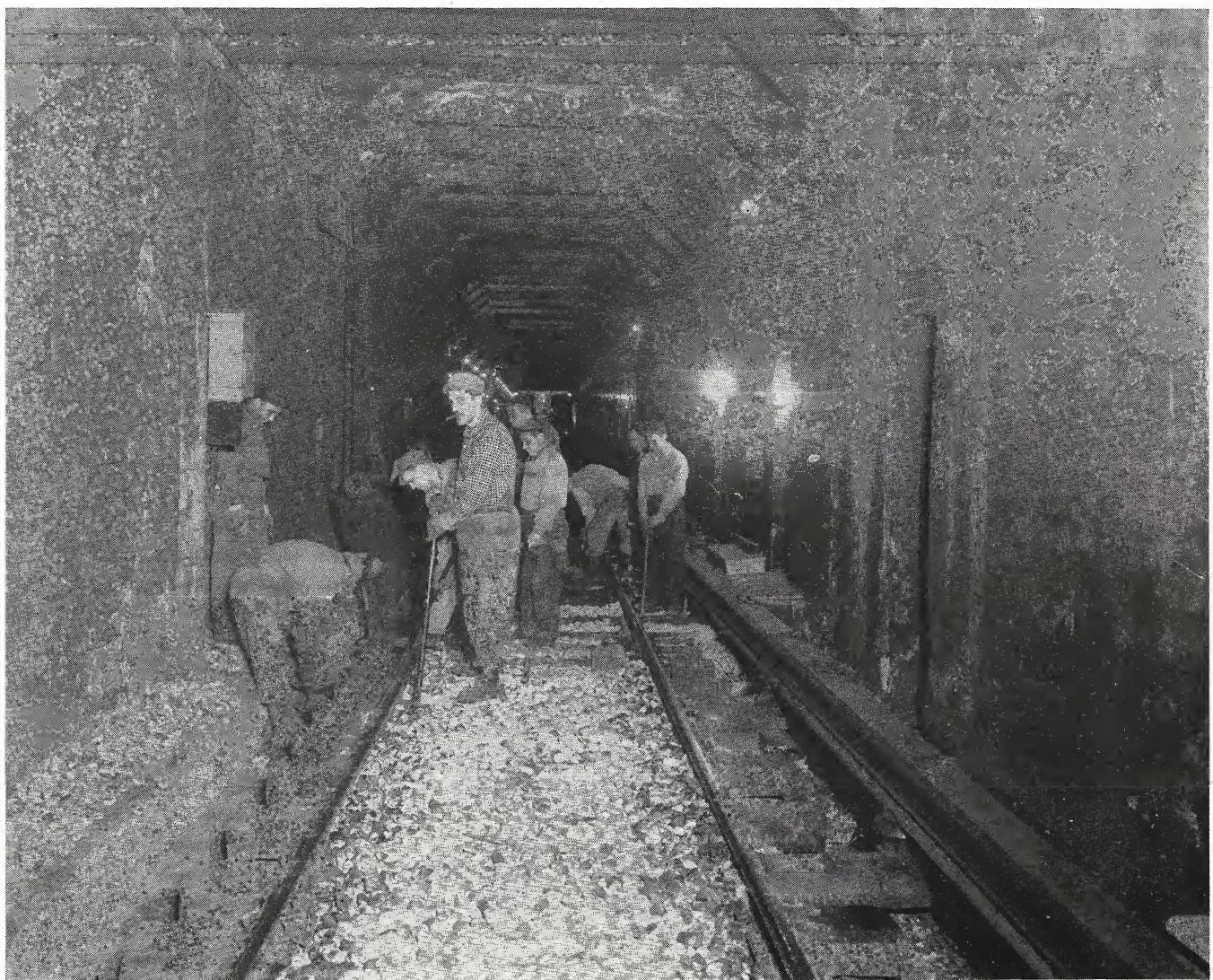


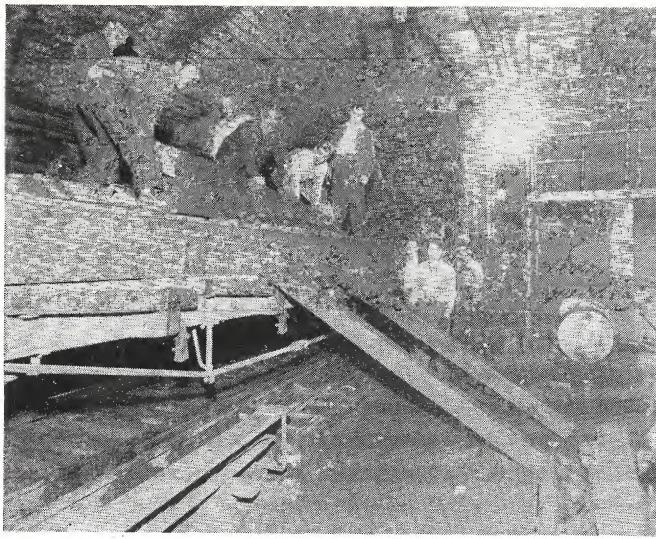
2. Purchase and installation of 60,000 feet of feeder cable and fittings as replacement, Dyckman to 240th Streets, Broadway-7th Avenue Line, IRT.
3. Purchase of specialized equipment, such as trucks, rail cars and shop machines in order to increase the efficiency of maintenance operations.
4. Purchase and installation of electric water heaters for crew quarters, all divisions.
5. Construction of track connection between the northerly end of Lead Track "A", E. 180th Street Yard, and southbound Track No. 2, Lenox-White Plains Road Line, IRT Division.
6. Construction of Trackmen's Quarters, Grand Central Station, Lexington-4th Avenue Line, IRT Division.
7. Additions and changes to lower end of the Third Avenue Line in connection with the abandonment and demolition of the City Hall Branch.

**Track and Structures;
Deferred Maintenance Program
For 1954-1959**

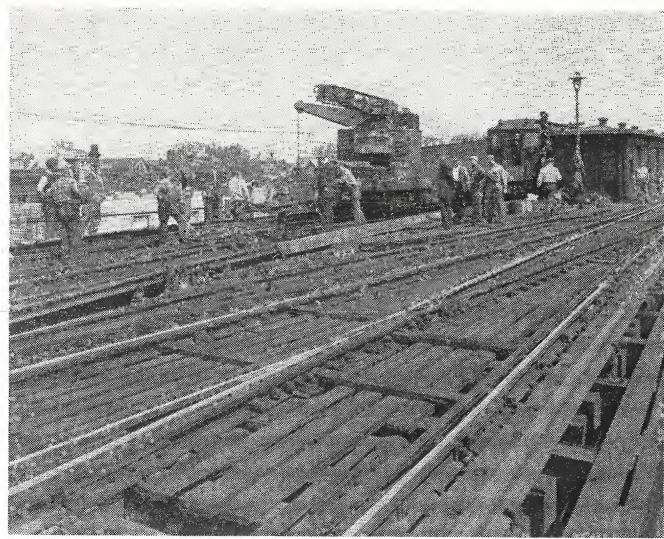
The following tabulations list the Deferred Maintenance Program contemplated for the next five fiscal years. The program is divided into three parts: Track and Power Distribution; Painting; Buildings and Steel Structures, as follows:

Track Reballasting—near Pacific Street, BMT.





Unloading Track Ties for Renewal—IRT Flushing Line, at 1st Avenue, Manhattan.



Delivery of Special Trackwork—241st St.—White Plains Road Line, IRT.

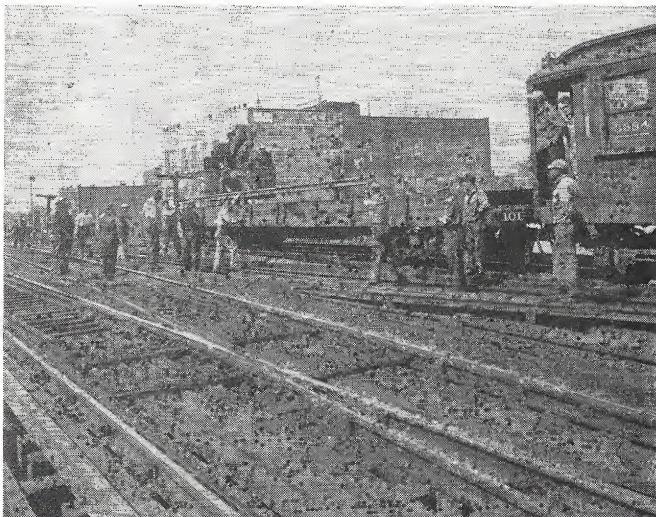
Track and Power Distribution

	Estimated Cost 1954-1959
Renewal of defective ties, worn rail fittings and reballasting tracks	\$ 12,506,000
Replacement of worn running rails	995,000
Replacement of worn contact rails and de- fective fittings	4,939,000
Replacement of D. C. feeder cables and positive transposition cables	2,448,000
TOTAL	\$ 20,888,000

Painting

	Estimated Cost 1954-1959
Painting elevated structures	\$ 8,341,080
Painting subway stations	5,076,500
Painting tunnel steel	2,000,000
Painting shops, car inspection sheds and miscellaneous buildings on all divisions	1,500,000
TOTAL	\$ 16,917,580

Unloading New Rail—241st St.—White Plains Road Line, IRT.



Track Tie Replacement—207th St.—B'way..7th Ave. Line, IRT.



Building and Steel Structures

	Estimated Cost 1954-1959
Renewing boilers at Kent Avenue Power House, BMT	\$ 930,000
Renewing station steel curb angles, BMT and IRT	850,000
Renewing and repairing storm partitions on viaduct structures and stairway handrails in subway stations, BMT and IRT	640,000
Repairing bridges of the Dyre Avenue Line, IRT	301,000
Replacing sidewalk vault light panels with reinforced concrete slabs	630,000
Renewing stair treads in stations of BMT, IRT and IND	925,000
Repairing steel viaduct structures of the West End, Culver and Fulton Street Lines, BMT, and of the Pelham Line, IRT	650,000
Renewing platform flooring on "L" stations, BMT and IRT	720,000
Renovating toilets, BMT and IRT	800,000
Renovating crew rooms, all divisions	1,075,000
Replacing water lines	640,000
Miscellaneous	750,000
TOTAL	\$ 8,911,000

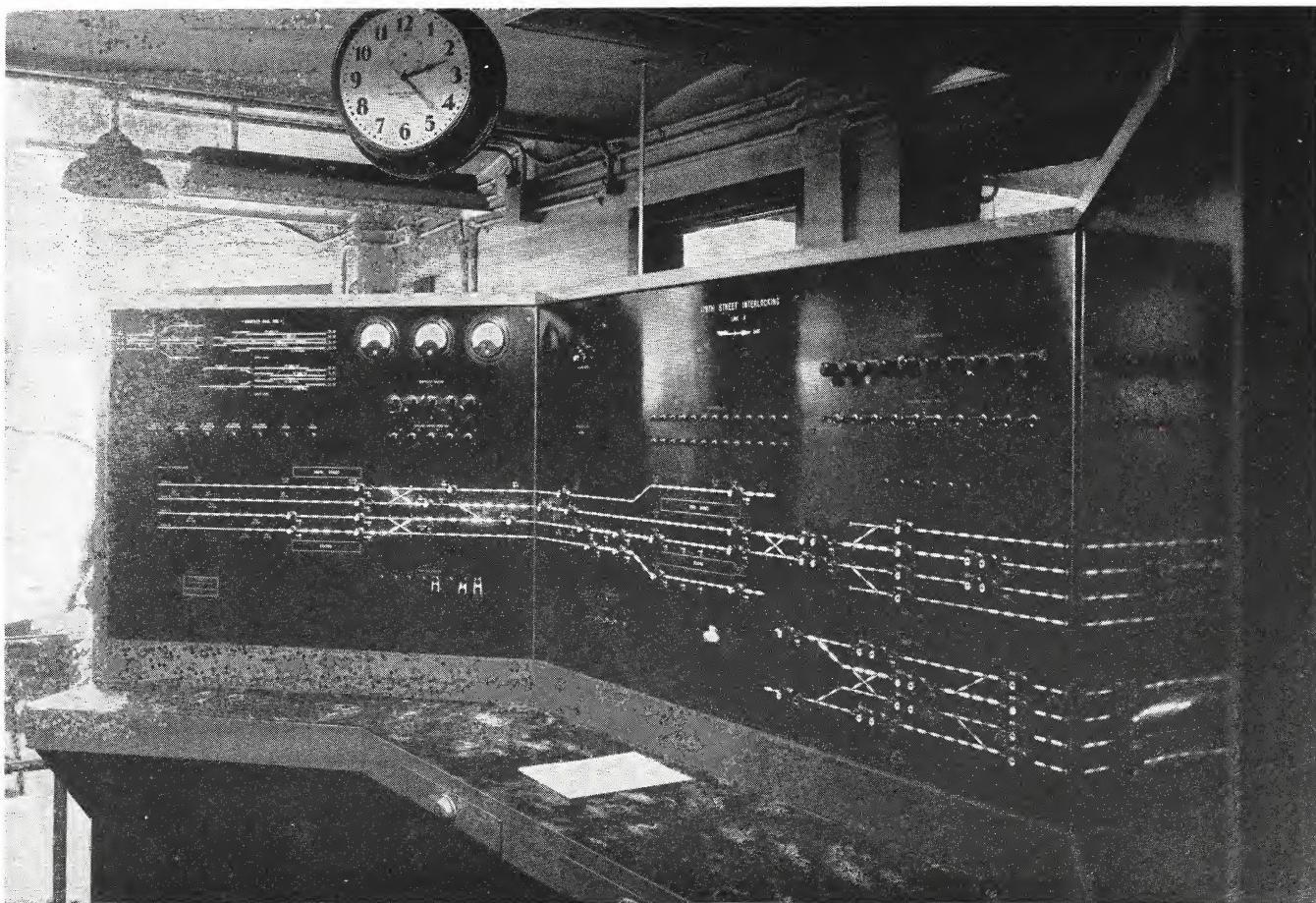
Bureau of Line Equipment

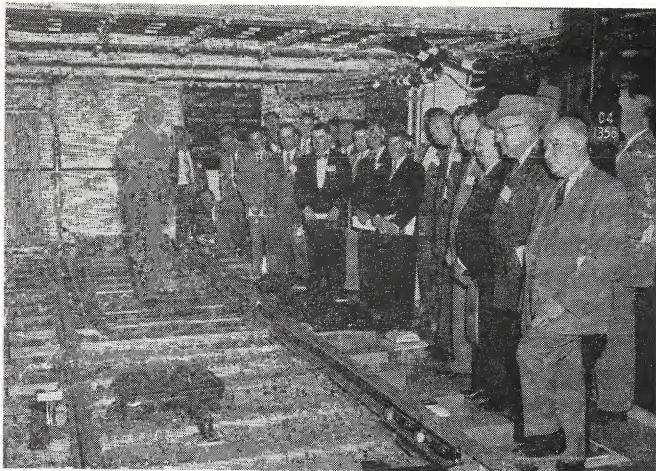
The Bureau of Line Equipment performs all maintenance and engineering work on all mechanical and electrical equipment on the New York City Transit System located along the right-of-way, except power transmission lines and equipment, and cars. The Bureau of Line Equipment also does the engineering for construction contracts on signal and telephone work, through the Engineering Department of the Transit Authority.

The equipment covered includes signals, lighting, telephone and emergency alarm, turnstiles and fare collection equipment, elevators and escalators, ventilation and drainage equipment, power distribution equipment, surface line equipment including trolley overhead, power feeders and lighting.

The following tabulation shows the number of Line Equipment items on the Transit System as of June 30, 1954 maintained by this Bureau:

Route Interlocking Machine—179th St. Terminal—Queens Line—IND Div.





Bureau of Line Equipment School.

Miles of Track Signaled	776.73
Number of Signals	11,299
Number of Stops	8,083
Number of Interlocking Plants	213
Lighting	
Number of Stations	507
Total Number of Lamps of All Types.....	2,252,245
Number of Lamps Changed per year on Stations and in Tunnels	1,063,600

Turnstiles

Number of Low Entrance Turnstiles.....	2,700
Number of High Entrance Turnstiles.....	150
Number of Fare Boxes on Surface Lines.....	2,800

Ventilation and Drainage

Number of Ventilating Plants	140
Number of Pumping Plants	242

Elevators and Escalators

Number of Passenger Elevators.....	28
Number of Escalators.....	81
The escalator at 53rd Street and Lexington Ave., IND, is 112.6 feet long. This escalator is the longest in the United States.	

Power Distribution

Number of Line Feeder, Equalizer and Series Circuit Breakers, Third Rail Power	703
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Surface Line—Overhead Trolley

Miles of Overhead for Trolley Cars	50.18
Miles of Overhead for Trolley Coach (Incl. Pos. & Neg.)	151.10
Garages, Depots, and Other Buildings Maintained	30

In the fiscal year ended June 30, 1954, the Bureau of Line Equipment was engaged in carrying out a Deferred Maintenance Program, and a Capital Program, the authorized expenditures for which are divided approximately as follows:

Line Equipment Program June 30, 1954

Estimated Cost

	Deferred Maintenance	Capital Program	Total
Signal and Interlocking	\$110,000	\$ 715,000	\$ 825,000
Lighting and Electrical Work.....	360,000	755,000	1,115,000
Elevators and Escalators	500,000	475,000	975,000
Telephone and Communications	4,000	150,000	154,000
Ventilation and Drainage	—	60,000	60,000
Surface Line	20,000	1,000	21,000
Other	—	50,000	50,000
	\$994,000	\$2,206,000	\$3,200,000

The Deferred Maintenance and Capital Programs projected for the next five years, are estimated to require expenditures for each year of this period of a comparable order to the above.

Listed below are specific major projects, the estimated cost of which exceeds \$25,000, which are a part of the above programs or will be included in future programs.

Line Equipment Projects Presently In Progress

1953-54 Deferred Maintenance Program

	Estimated Cost
Replacement of 4 signal air compressors, IRT Div.	\$ 58,200
Replacement of existing interlocking and switch machines, Broadway-Myrtle Ave. Line, BMT Div.	80,890
Purchase and installation of equipment to supply power and light for outlying units, Unionport Yard, Dyre Ave. Line, IRT Div.....	25,250
TOTAL	\$164,340

1953-54 Miscellaneous Capital Improvements

Replacement of wire and cable, Prospect Park Interlocking, BMT Div.	\$ 71,000
Purchase and installation of 25,000 feet of 2" galvanized signal air line, Jerome Ave. Line, IRT Div.	62,500
Signaling of middle track between 96th St. and 137th St., Broadway-7th Ave. Line, IRT Div.	94,000
Replacement of signal feeder cables between 38th St. Substation and 9th Ave. Sta., BMT Div.	61,000
Installation of track indicator board, Grand Central Station, IRT Div.	59,400
TOTAL	\$347,900

Proposed Projects

1953-54 Deferred Maintenance Program

	Estimated Cost
Replacing steps, comb and floor plates on 28 type "ML" escalators	\$ 368,400
Renewal of conduit and wiring for station lighting, IRT Div. (4 year project).....	224,300
Renewal of 2500 Volt Lighting feeder cables on outdoor portions of IRT Div. (2 year project)	107,100
Renewal of conduit and wiring for tunnel lighting, IRT Div. (2 year project).....	120,000
Replacement and rehabilitation of defective wiring, conduit and fixtures, 96 elevated stations and 93 subway stations, BMT Div. (4 year project)	268,700
Replacement and rehabilitation of defective wiring and conduit in Coney Island Shop, BMT Div.	610,000
Replacing and rehabilitating defective conduit wiring in East New York Shop, BMT Div.	24,500
TOTAL	\$1,723,000

1953-54 Miscellaneous Capital Improvements

Replacement of defective and obsolete lighting, Livonia Ave. Yard, IRT Div.....	\$ 25,200
Replacement of old drum type elevators, with modern type, IRT Div.	290,000
Installation of duplicate 220 Volt Signal feeder and transfer equipment, Broadway Line, Lex. Ave. to 19th St., BMT Div.....	191,000
Illumination of track switches, IRT Div. (4 year project)	154,000
Replace present escalators at Intervale Ave. and 177th St., West Farms, with modern type "O" escalators, IRT Div.	220,000
Installation of 3rd rail heaters for snow melters on Manhattan and Williamsburgh Bridges, BMT Div.	58,000

Floodlighting Stillwell Ave. incline, Coney Island Terminal, BMT Div.	100,000
Motorization of overhead rolling doors, Car Shops, IRT Div.	127,750
Installing additional lighting and power circuits, Coney Island Shop, BMT Div.....	220,000
TOTAL	\$1,385,950

Projects To Be Included In Future Capital Or Deferred Maintenance Programs

Installation of 60 cycle service and fluorescent lighting, 239th St. Shop and Office, IRT Div.	110,000
Provide changes in local track signaling to improve operating conditions at various locations, IRT Division	225,000
Replace present freight elevator at 59th St. Power Plant with modern type	25,000
Replace defective wire and cable at Tower B Interlocking, Coney Island Yard, BMT Division	74,600
Replacement of obsolete snow melters at 40 locations, IND Division	43,900
Replacement of main service switches, various locations, IND Div.	50,000
Recondition yard lighting, install floodlights and provide AC power supply, Car Storage Yards, BMT Div.	247,000
Replace defective switches and D.C. cables in yards, BMT Div. (3 year project)	50,000
Renew signal wire and cable, 145th St. to Dyckman St., Broadway-7th Ave. Line, IRT Division	50,000
Installation of track switch heaters at 50 locations on elevated lines, IRT Division....	70,000
Renewal of telephone cables at various locations, IRT Division	586,700
Replace 8,500 feet of telephone cable in the Montague St. Tunnels, BMT Div.	64,000
Replace worn wood guide rails with steel, replace car sling and cab, elevator No. 4, 181st St., Broadway-7th Ave. Line, IRT Div.	90,000
Replace cables and messenger wire from Marcy Ave. to Eastern Parkway, Broadway-Jamaica Line, BMT Division	113,200
Construct new control room to house moving platform control equipment at 14th St., Lex. Ave. Line, IRT Div., and rewire moving platforms	57,000
Replace present type "L" escalator at White-hall St., Broadway Line, BMT	85,000
Install Floodlighting at various yards, IRT Division	116,000
Replace present lighting with fluorescent lighting and 60 cycle power at various car inspection shops, IRT Division	400,000
Provide additional headquarters at 5 locations, Lighting Section, IRT	54,000

Construct enclosure for recharging and repair of fire extinguishers, IND	40,000
Replacement of existing obsolete 600 Volt D.C. lighting with fluorescent lighting, Coney Island Administration Bldg., BMT	30,000
Convert existing 600 Volt Circuits to 120/208 Volt Circuits, Signal Section Headquarters Bldg., East New York, BMT	25,000
Provide Edison service, receptacles and flu- orescent lighting in shops, offices, storage buildings at Building Section, Bklyn. Cable Section and Storeroom No. 61, Atlan- tic and Franklin Aves., BMT Div.	121,000
Replace 8 old drum type elevators, with mod- ern type, IRT Div.	1,160,000
TOTAL	\$3,887,400

CAR MAINTENANCE

The Car Maintenance Department with 5,565 employees maintains a total of 6,792 rapid transit passenger and service cars operated on the three divisions, i.e. IRT, 3,059 cars, BMT, 1,750 cars and IND, 1,983 cars. Car maintenance work is done at four main repair and overhaul shops and twelve car inspection shops strategically located throughout the four major boroughs of the city. The department's engineering force designs new cars and prepares contracts for their construction with accompanying drawings.

207th Street Yard, IND Div.—Night View.



Passenger Cars

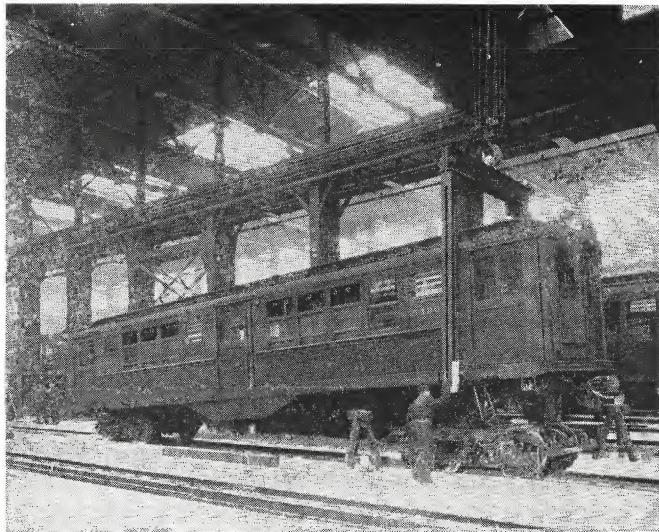
As of June 30, 1953, a total of 6,681 passenger cars were being maintained. During the course of the fiscal year, 120 elevated railroad cars no longer required for service were scrapped, together with six subway cars which were damaged in collision beyond economical repair. During this period, 20* motor cars costing \$200,000 were acquired by purchase from the Staten Island Rapid Transit Company, resulting in a total of 6,575 rapid transit cars being maintained for passenger service, as of June 30, 1954.

These 6,575 cars are operated in passenger service, nearly 302,000,000 miles annually at an average cost of 10¢ per car mile for maintenance. Maintenance of cars includes inspection and overhaul programs based on car miles operated to provide the best possible integrity of operation, developed from over 50 years of rapid transit operating experience.

The replacement of 1,246 light truck frames furnished with cars delivered on Contracts R-10, 12 and 14 in accordance with an agreement dated June 30, 1950 between the former Board of Transportation and the ACF Industries, Incorporated, at a cost of \$1,214,850, was completed during this fiscal year. The SIRT cars previously noted are

* An additional 5 motor cars and 5 trailer service cars including extra miscellaneous equipment were acquired from the SIRT subsequent to June 30, 1954, at a cost of \$100,000.

Raising Car Body—IRT Shop.



being modified at the Coney Island Repair Shop to meet equipment requirements for BMT subway operation.

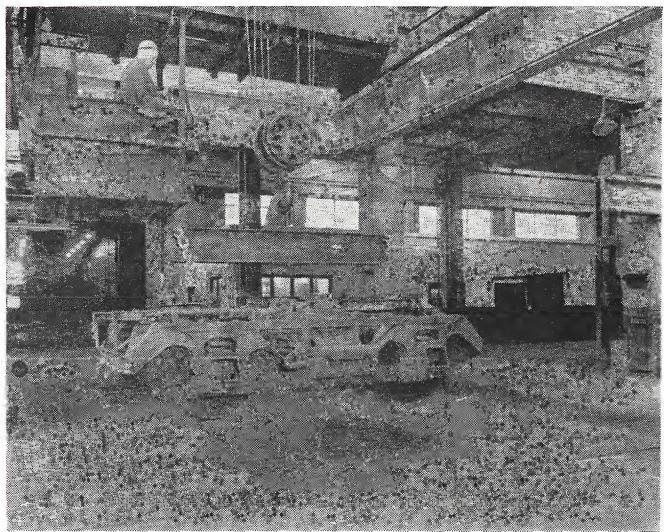
Approved Maintenance Program

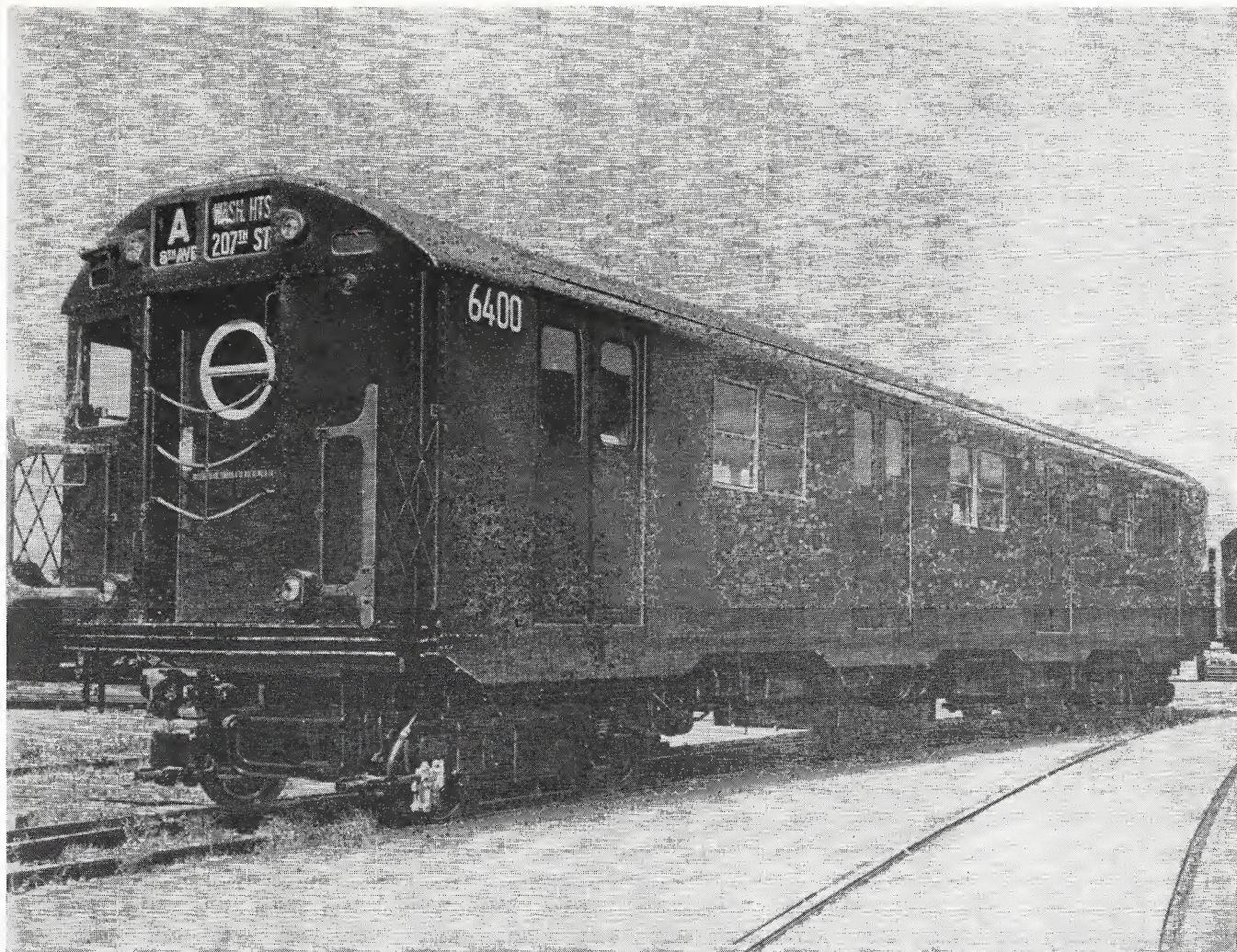
Interiors of all subway cars are scheduled for repainting every five years and all phases of car cleaning are performed on a schedule which includes sweeping of all cars once every 24 hours, window cleaning on an average of once every 10 to 15 days, and interior washing varying from every four months to one year.

During the 1953-54 fiscal year, the Transit Authority approved the following programs which are now in progress:

1. Improved lighting within all of the older cars on the three divisions which will provide for an improvement of 50% in interior car lighting at an estimated cost of \$130,500.
2. To improve appearance and provide increased passenger comfort, contracts have been placed for 100 complete car sets of newly designed seat cushions and backs on each of the three divisions, costing approximately \$350,000. These seat units are of new design and constructed with red vinyl plastic covering over cored synthetic foam cushions.
3. A new, more pleasing two-tone interior color scheme for subway cars similar to the latest cars operated on the IND Washington Heights and IRT Flushing Lines has been approved by

Lifting Car Truck—IND Shop.





Exterior View of R-16 Type Subway Car.

the Authority and has been put into effect on all of the older cars of the three divisions as they go through the shop for scheduled painting. Included in this paint program, the Authority approved an accelerated program of painting cars on the IRT Division once every five years instead of every 10 years.

4. Since June 30, 1953, contract specifications and drawings have been prepared and a contract let on December 8, 1953 for 200 IND-BMT type subway cars at a cost of \$25,000,000 with initial delivery due on December 10, 1954. These cars are now under construction at the Berwick, Pa. plant of the ACF Industries, Incorporated.

Specifications have been prepared and are now being printed, and design drawings are now under

way preparatory to advertising for bids for 300 IRT type cars at an estimated cost of \$36,000,000.*

Improvements Incorporated On New Cars

Improvements incorporated in the foregoing new cars include the most modern developments for passenger comfort. Electronic ventilation control will regulate air temperatures summer and winter. Improved fluorescent lighting will provide higher light intensities for greater reading comfort. Noise levels and side sway will be reduced by generous use of rubber and shock absorbers. Improved mechanical equipment will reduce maintenance costs and keep the cars in service for longer periods between major overhauls.

* This contract was subsequently expanded to take advantage of lower unit costs and a contract totalling \$42,000,000 was let on September 27, 1954 by the Authority for the purchase of 400 new IRT type cars from the St. Louis Car Company.

Improvements In Shop Equipment Machinery and Shop Facilities

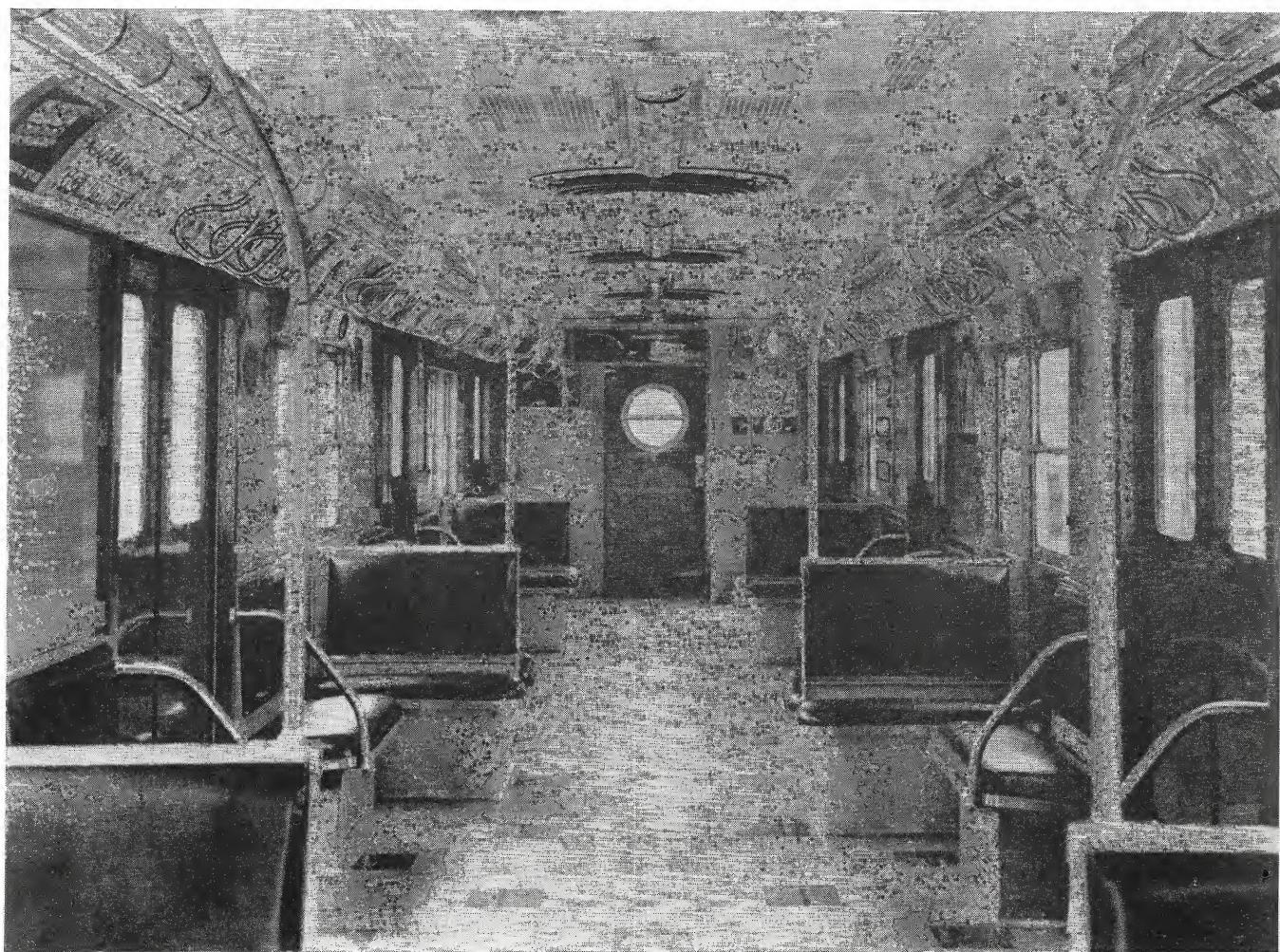
The following improvements in shop equipment, machinery and shop facilities have been approved by the Authority:

1. Replacement of four boilers in the heating plant at the 147th Street Shop, IRT Division, at a cost of \$161,000.
2. Conversion of the heating plant from coal-fired to oil-fired boilers at the 207th Street Shop, IND Division, at a cost of \$120,000.
3. Conversion of auto garage to locker and wash room at the 147th Street and 7th Avenue Shop, IRT Division, to provide for facilities for additional working personnel, costing \$35,585.
4. The Authority has approved \$60,000, for additional or replacement machinery and shop tools during the 1953-54 fiscal year.

POWER GENERATION, DISTRIBUTION AND CONVERSION

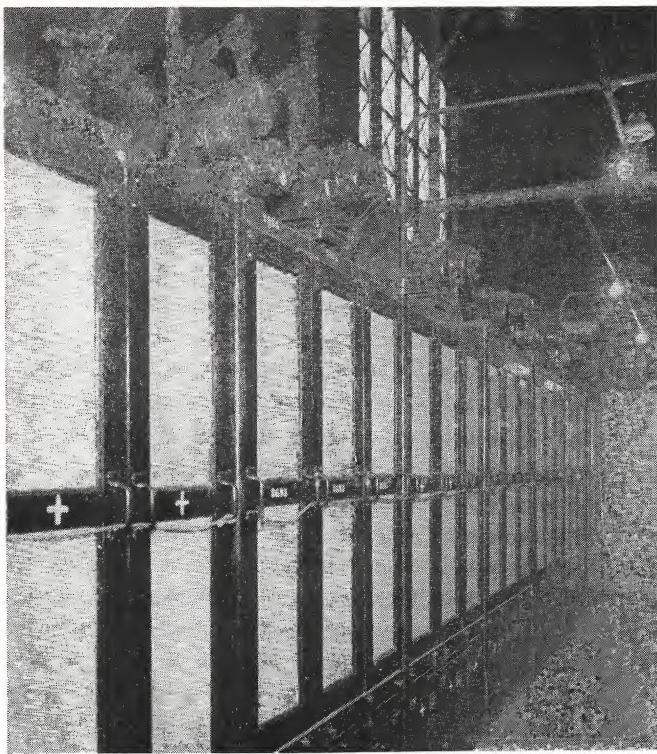
The Power Department in supplying the power needs of the Transit System requires the services of 2,980 employees and an annual operating budget of \$34,760,000. The Authority's Power Department operates and maintains three power plants, two in Manhattan and one in Brooklyn, generating annually 1.25 billion kilowatt hours for the operation of the BMT and IRT Divisions. Power for the operation of the IND Division is purchased from the Consolidated Edison Company and amounts annually to more than 600,000,000 kilowatt hours. The Department also operates and maintains 152 electrical railway substations with approximately 2,000 miles of overhead and underground electric cables.

Interior View of R-16 Type Subway Car.



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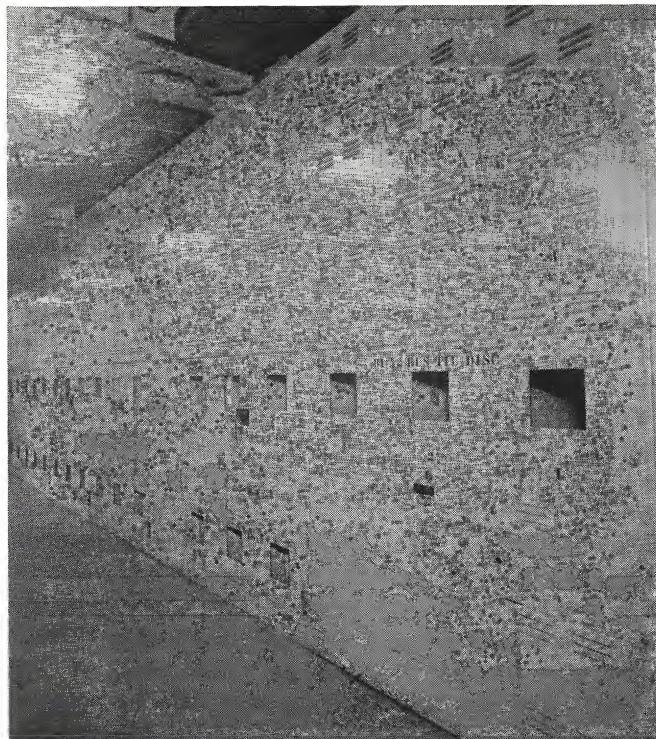


59th St. Power Plant—Old Switchgear.

The Power Department is now engaged in the rehabilitation and modernization of system power facilities and in the development of plans for the supply of power for extension of existing transit lines and the construction of new lines.

The 74th Street Power Plant, located at 74th Street and the East River, Manhattan, is in the process of reconstruction, the first step of which is expected to be completed in 1955 at a cost of \$45,000,000. Obsolete steam-engine driven generators, installed in 1904, are being removed and part of the original plant structure is being demolished. The addition to the plant will house a 60,000 kilowatt turbine driven generator, two 20,000 kilowatt frequency converters, two 450,000 pounds per hour steam boilers, 25 and 60 cycle switchgear, and modern mechanical and electrical control rooms. Provision is also being made for a second turbine-generator and a third boiler. The new boilers at 74th Street are designed for both oil and pulverized coal. The generator will supply power at 13,800 volts, 60 cycles.

At the 59th Street Power Plant the rehabilitation work is continuing. With the new 60,000 kilowatt unit in service, work is progressing on the



59th St. Power Plant—Modern Switchgear.

modernization of the electrical switchgear galleries and the electrical control equipment.

Two new remote-controlled modern ignitron rectifier type substations have been placed in operation on the Culver Line in Brooklyn to furnish power for the improved service over this line via the interconnection between the IND Division and the BMT Division at Ditmas Avenue.

For improvement of service and because of new transit lines, contracts have been let for equipment for nine new substations including equipment for the IRT Division Flushing Line and the Rockaway Line.

Future plans for rehabilitation and modernization of the Authority's power facilities are described elsewhere in this report under the Capital Budget Program.

SAFETY PROGRAM

At the time the Safety Bureau was established in July 1946, system-wide employee accident and injury totals equalled those of the most hazardous occupations in industry, and public accidents had also climbed to alarming peaks. The beneficial

effects of the long-range safety program which was then launched is reflected in the Authority's safety record and awards to date.

Employee Accident Prevention

For the past fiscal year, July 1, 1953 to June 30, 1954, the employee disabling injury rate was reduced by 15.5% as compared with the previous period ended June 30, 1953.

The best individual records from July 1, 1953 to June 30, 1954 were Outside Plant (Power Department) and the IND Transportation Department, each of which worked 1,000,000 consecutive hours without a single disabling injury; and IND Transportation Operation which has set a new world's record in the transit industry, having accumulated over 2,400,976 consecutive hours without time lost through accident.

Cumulatively, since the inception of the Safety Bureau in 1946, the disabling injury rate has been slashed by 80.8%.

That the over-all safety record of Transit Authority employees is commendable is evident from the fact that 98.3% of the entire personnel worked through the fiscal year ended June 30, 1954 without any absenteeism due to accidents. For outstanding employee safety performance records throughout these months, the Authority has received an Award of Merit from the National Safety Council, two each of American Transit Association's Gold, Silver and Bronze Certificates, and six first-place awards in the State-wide Greater New York Safety Council Inter-Plant Contest comprising 449 contestants.

Public Accident Prevention (Surface Lines)

While New York City Police Department statistics showed an increase in all traffic accidents during the calendar year 1952 compared to the calendar year 1951 of 13.4%, the Transit Authority vehicles decreased theirs by 15%. In the year 1953 there was a further upward trend of 7.7% in the over-all City record for traffic accidents, whereas the Transit Authority's record showed a downward trend of 10.6% during that period.

Public Accident Prevention (Rapid Transit)

Although the public accident prevention program for Rapid Transit lines has been in effect only since June 1952, the various measures that have been taken to protect the public from injury, supplemented by safety reminders on posters, have already brought about a gratifying reduction in the number of accidents. A monthly report containing analysis of types and number of accidents, charts and tables showing frequency rates per million passengers carried, and ratio per million revenue car miles operated is issued and distributed to all interested personnel. A report covering the fiscal year ended June 30, 1954 shows the frequency rate per million revenue passengers carried to be 10.1, the rate for the same comparable period in the previous fiscal year having been 11.1.

The Safety Bureau engages in research and tests of ideas, material and equipment to reduce hazards. Findings regarding same are submitted to operating officials for consideration. Some of the safeguards that have been adopted are:

(a) The edges of all Rapid Transit station platforms have been painted with a high visibility yellow paint which serves as a guide and "alert" to passengers when boarding and alighting from trains. This special paint is also applied at the head and base of stairways.

(b) Train starting bells at stations are being replaced by train starting lights. Audible signals such as bells cause passengers to hurry on stairways, platforms and passageways, creating a source of accident. The complete elimination of train starting bells is the ultimate aim.

(c) Public address paging systems are being installed at important stations on the three Rapid Transit Divisions. Frequent announcements warning the public to "watch the doors", "watch step", etc. are made especially during rush hours. Information concerning train operation is also transmitted as required and is extremely helpful in the orderly handling of passengers in case of delay or stoppage of train service.

(d) Vending machines and other objects placed on station platforms are surveyed and recommendations are made for their removal or change of

location, if they tend to obstruct the orderly and efficient flow of passengers.

(e) A completely new series of illustrated bulletin size safety posters has been prepared especially for Transportation Department employees and will be placed on bulletin boards along with regular notices.

(f) The Safety Bureau has made up a set of courtesy posters for display at all stations on the Rapid Transit System. The messages on these posters are addressed to both passengers and employees with emphasis on the fact that safety is promoted by courtesy on the part of everyone.

On the theory that cleaner locations are safer locations, a "house-cleaning" campaign to make the public and employees "litter and dirt" conscious was started in April 1954. This program resulted in great improvement on the part of the public in keeping station platforms, tracks, and cars in a cleaner condition.

TRANSIT SYSTEM POLICE

The Authority's Transit System Police Department is charged primarily with the maintenance of good order, the enforcement of laws and ordinances of the state and city, guarding the safety of the passengers and public and performing other tasks of a policing nature specifically directed by the New York City Transit Authority.

The administration of the Transit Police Department is under the immediate command of a Captain, who is assisted by four Acting Captains, all assigned from the New York City Police Department. One of the latter serves as Chief of Staff and the remaining three exercise functions of Commanding Officers of districts within the Transit Police Department. The Transit Police force totals 652 employees at an annual cost to the Authority of \$2,635,000.

Although the Transit Police Department is charged with the investigation of crimes committed on all properties under the jurisdiction of the New York City Transit Authority it primarily patrols the rapid transit lines. For the purpose of policing, the rapid transit lines have been divided into eight

police districts, with central headquarters at 370 Jay Street, Brooklyn (Transportation Building). The districts are divided into posts and sectors. A post comprises one or more stations and is patrolled by uniformed Transit Patrolmen. A sector is comprised of a number of posts and is patrolled by Transit Sergeants for supervisory purposes.

A Special Duty unit of the Transit Police is charged particularly with the prevention of crime and other unlawful acts, the apprehension of law violators, the investigation of complaints and the taking of such action as is appropriate in each individual case.

A Revenue Protection unit of the Transit Police has as its particular duty the protection of revenue of the New York City Transit Authority while in transit and within the money room located at 370 Jay Street, Brooklyn.

Each Patrol District is under the command of a superior officer. The patrol force is particularly charged with patrolling the stations, trains, toilets, stairways, platforms and other areas of the rapid transit system generally used by the travelling public.

SPECIAL INSPECTIONS

The primary purpose of the Special Inspection Department is the protection of the revenues of the Transit Authority. The Department is also concerned with the investigation of conditions hazardous to employees and the travelling public. The investigation of employees reported absent on account of illness and the protection of various shops, barns, yards, powerhouses, etc. are also the responsibility of the Special Inspection Department.

Special Inspectors in this group have, during the same period, made 81 calls at the homes of employees or former employees at the requests of their Departments for the purpose of collecting Transit Authority property still in their possession, such as passes and badges, miscellaneous articles of operating and safety equipment. 155 major cases involving mishandling of revenue, the purchase or consumption of intoxicants and other serious derelictions of duty were investigated by the Department and were finally disposed of by the acceptance of

resignations or disciplinary actions ranging from reprimands, suspensions and probation, to dismissal.

In the period July 1, 1953 to June 30, 1954 a total of 10,081 employee derelictions and equipment defects were reported.

In conjunction with the Transit Authority's reduced fare program for students, observations were made from time to time at various stations on the three Rapid Transit Divisions and on the Bus Divisions. Between July 1, 1953 and June 30, 1954 Special Inspectors confiscated 481 School Eligibility cards presented for transportation at stations where they were not valid for use, by persons other than those to whom issued, and for other failures to comply with the conditions under which cards are issued.

Numerous observations have been made in connection with the deposit of slugs, or tokens other than those of the New York City Transit Authority in turnstiles, cases of fare evasion by going under or over the arms of turnstiles, doubling up in turnstiles with paid passengers, or entering by way of gates by displaying unauthorized credentials.

Property protection is assured by the vigilance of Foremen of Railroad Watchmen in the supervision of 235 Railroad Watchmen all under an Assistant Supervisor of Special Inspections. They are assigned to 60 posts at various shops, barns, yards, storehouses, powerhouses, etc., of the Transit Authority, located in the five boroughs of the city, to prevent unauthorized entrance at their locations, and to apprehend persons attempting to remove materials, etc., from transit property without au-

South Brooklyn Railway Operation—Leaving TA subway cut.



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thorization. This force also aids in the prevention and detection of fires.

THE SOUTH BROOKLYN RAILWAY COMPANY

The South Brooklyn Railway Company, acquired under the Unification Plan of 1940, is owned by the City of New York and is operated by the New York City Transit Authority under the Agreement of Lease.

The length of this Railway is approximately 6½ miles, starting from the waterfront at 38th Street, Brooklyn; thence operating through the subway cut at 38th Street and 4th Avenue; thence to 9th Avenue to 37th Street, thence beneath the Culver Elevated Line to McDonald Avenue and Avenue Z, Coney Island.

The following Freight Stations are located on this 6½ mile operation:

Stations	Street Location
39th St. and 3rd Ave., N. Y.	38th St. near 2nd and 3rd Aves.
Greenwood, N. Y.	38th St. and Fort Hamilton Pkwy.
Kensington, N. Y.	14th Ave. and 37th Street
Gravesend, N. Y.	McDonald Ave. and Kings Highway
Coney Island, N. Y.	Shell Road near Avenue Z

In addition to these steam car stations, the South Brooklyn Railway operates Paramount Carload Collection and Delivery Service between 39th Street and 3rd Avenue Station and the premises of shippers and consignees in Brooklyn, N. Y., equipped to accommodate motor truck trailers.

LOST PROPERTY OFFICE

The Lost Property office moved into its new quarters on the Subway Concourse at 370 Jay Street



Lost Property Office—370 Jay Street Building.

over Lincoln's Birthday weekend and was opened to the public on Monday, February 15, 1954.

In its first month at the new location, 4,744 items were received, 40% of which were returned to owners; 6,356 telephone inquiries were received and 1,212 people were served over the counter. From July 1, 1953 to June 30, 1954 a total of 61,429 items were received. Approximately 23,700 items were returned to their rightful owners.

Among these items there was \$25,089.51 in cash, of which \$18,700.18 was returned to owners. Since the introduction of tokens on July 25, 1953, 2,012 were received as lost property, 983 of which were returned to owners.

Approximately 11,000 postcards were mailed to the public advising them that property bearing their names and addresses had been turned in. Auction sales are held semi-annually; the proceeds of these amount to approximately \$7,000 per annum. The net proceeds are turned over to the Operating Fund as are all unclaimed monies and tokens.

IV

SURFACE SYSTEM

THE Surface System of the New York City Transit Authority is under the direction of the Assistant General Superintendent—Surface, and is comprised of the Surface Transportation and Maintenance Departments with more than 9,500 employees, a payroll approximating \$42,000,000 annually and properties including rolling stock, shops, garages, car houses and depots valued at many millions of dollars.

The Surface System provides passenger service over scheduled routes on a 24 hour daily basis, operating a fleet of 2,140 buses, 200 trolley coaches and 120 trolley cars, totalling 2,460 units. It transports an average of 1,225,000 passengers daily, 450,000,000 annually—about equal to a movement

of the entire population of the United States three times a year.

The Surface System comprises a total of 129 lines, listed by Divisions as follows:

Division	Bus Lines	Trolley Lines	Coach Lines	Trolley Lines	Total
Brooklyn	61	7	—	3	71
Queens	32	—	—	—	32
Staten Island	21	—	—	—	21
Manhattan	5	—	—	—	5
Totals	119	7	—	3	129

The following tabulation shows the equipment used to carry passengers on the bus, trolley coach and trolley car lines:

Buses, Trolley Coaches and Trolley Cars

	Brooklyn	Staten Island	Queens	Manhattan	Total
Buses:					
Diesel Engine	918	81	451	183	1,633
Gasoline Engine	356	151	—	—	507
Total Buses	1,274	232	451	183	2,140
Trolley Coaches					
Trolley Coaches	200	—	—	—	200
Trolley Cars	120	—	—	—	120
Total Vehicles.....	1,594	232	451	183	2,460

The bus operations consist of 523.04 route miles, including 259.04 in the Brooklyn Bus Division, 120.00 in the Staten Island Bus Division, 126.49 in the Queens Bus Division and 17.51 in the Manhattan Bus Division.

The trolley coach operation covers 29.47 miles of route.

The trolley car system consists of 38.59 miles of running track along 19.15 miles of route.

The mileage by Boroughs is shown in the tabulation of Route Miles—Surface System.

Surface Maintenance

The Transit Surface System operates the largest surface vehicle maintenance department in the world. Its enormity can be grasped when one considers that its vehicles travel approximately 77,000,000 miles annually. Annual fuel requirements for this gargantuan operation are:

For Buses: 16 million gallons of diesel fuel and over 5 million gallons of gasoline.

Route Miles—Surface System

	Manh'n	Bronx	B'klyn	Queens	Staten Island	Total
Trolley Car						
Brooklyn			19.15			19.15
Total			19.15			19.15
Trolley Coach						
Brooklyn			27.54	1.93		29.47
Total			27.54	1.93		29.47
Bus						
Brooklyn			217.50	41.54		259.04
Staten Island					120.00	120.00
Queens		5.88		120.61		126.49
Manhattan	17.51					17.51
Total	17.51	5.88	217.50	162.15	120.00	523.04
Total Surface	17.51	5.88	264.19	164.08	120.00	571.66

For Trolley Cars and Coaches: more than 6 million kilowatt hours of electricity.

Inevitably 77,000,000 miles of vehicle travel on heavily congested city streets entail considerable

hazard and service wear reflected in a substantial maintenance workload. At strategic points throughout New York are located eighteen major operating garages and plants which service and maintain

East New York Bus Shop—Scheduled and Unscheduled Bus Repair Area.



2,658 surface vehicles of five classes: buses, trolley coaches, trolley cars, automobiles and trucks. These plants are manned by 2,289 skilled employees working around the clock.

Maintenance includes the cleaning, servicing and painting of buses, trolley coaches, trolley cars, automobiles and trucks, lubrication, scheduled operations (preventive maintenance inspections and subsequent adjustments and repairs), unscheduled repairs, unit replacements, unit rebuilds, general overhaul, supply, reclamation and salvage.

Bus inspection schedules are prepared to provide proper frequency of inspections, adjustments and repairs. Each bus receives a daily, rapid safety inspection when it is cleaned and refueled. Buses are scheduled for inspection at intervals of 1,500 miles. Besides daily and 1,500 mile inspections, additional operations on the buses involving more extensive maintenance work are performed at mile-

ages of 3,000, 12,000 and 24,000 miles when every bus unit reaching a specific mileage, will have been thoroughly checked and replaced as necessary.

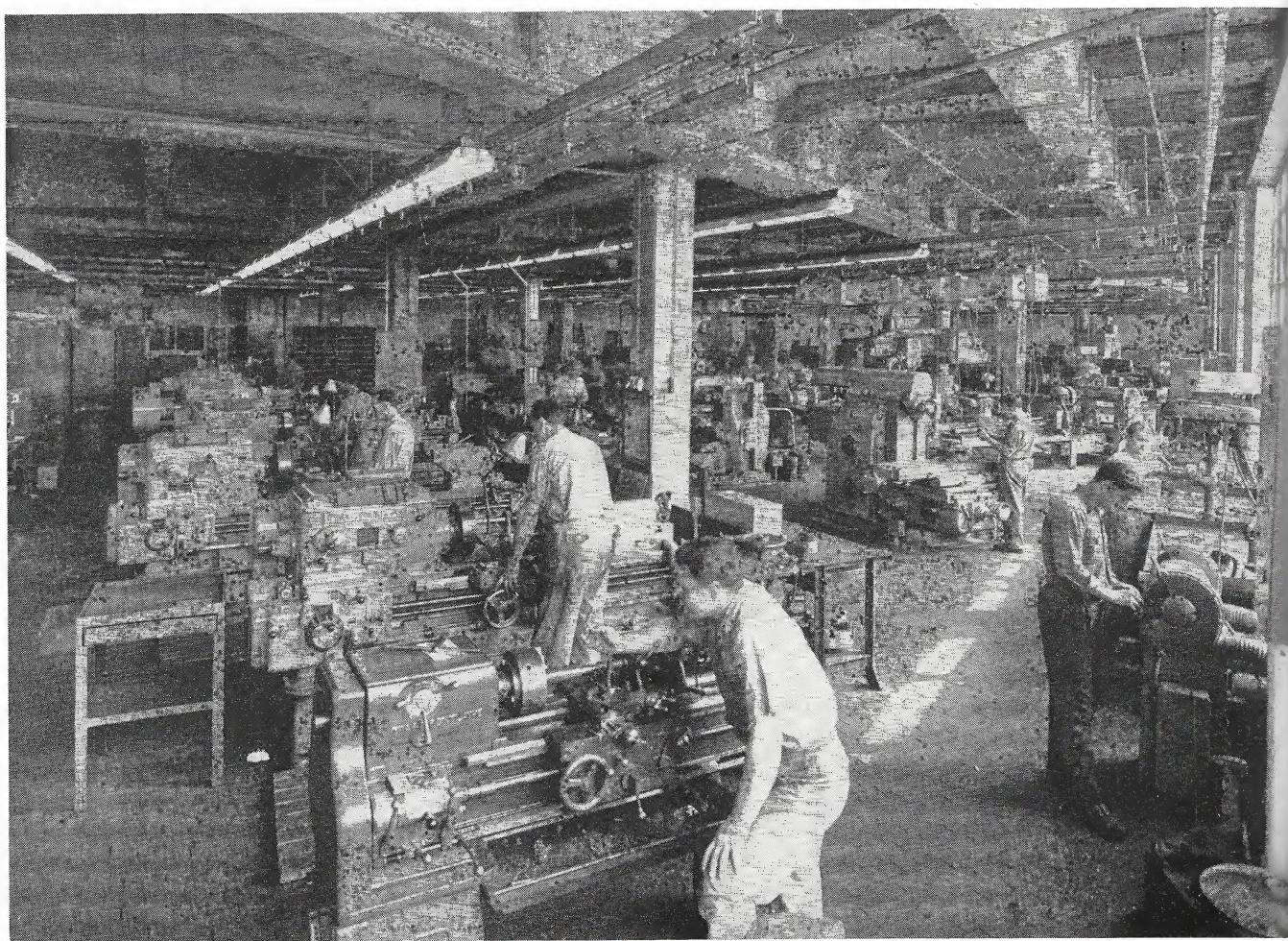
Plant Facilities

The East New York Base Shop

The East New York Base Shop, located in the East New York Surface System Building, contains the largest and most modern bus overhaul and repair facilities in the world. Here, maintenance functions include unit rebuilds, general overhaul, body rehabilitation and painting, major accident repairs, salvage, supply and delivery to garages of complete units, assemblies, parts and materials.

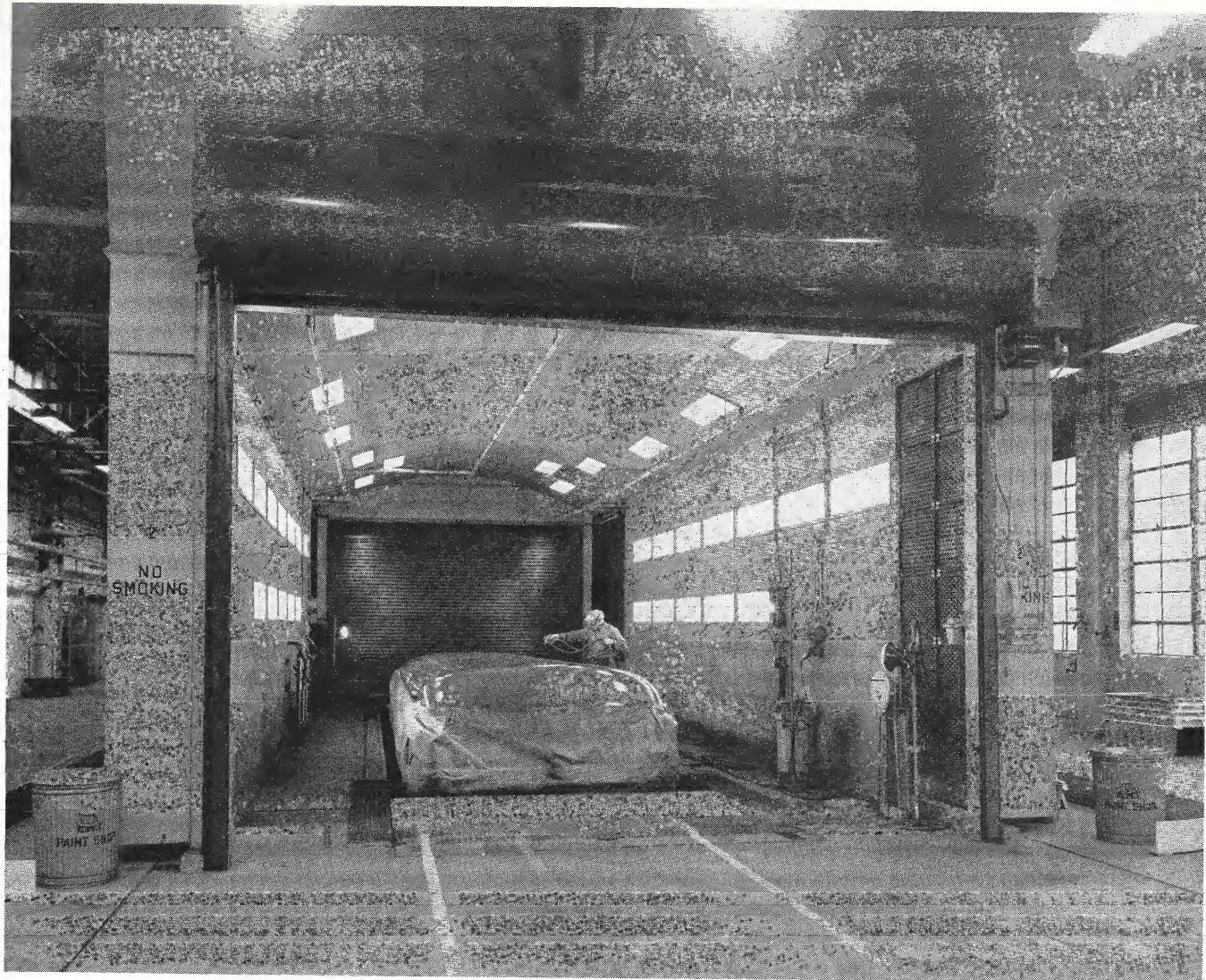
Occupying five acres of the huge East New York building, the repair and overhaul shop facilities include a one million dollar paint shop capable of painting three buses per shift, equipped with three

East New York Bus Shop—Automotive Machine Shop.



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East New York Bus Paint Shop—Spray Booth with Bus Depressed for Roof Painting.

spray booths in which buses can be lowered on hoists to permit painting of their upper portions without resorting to scaffolds.

Modern Garage Facilities

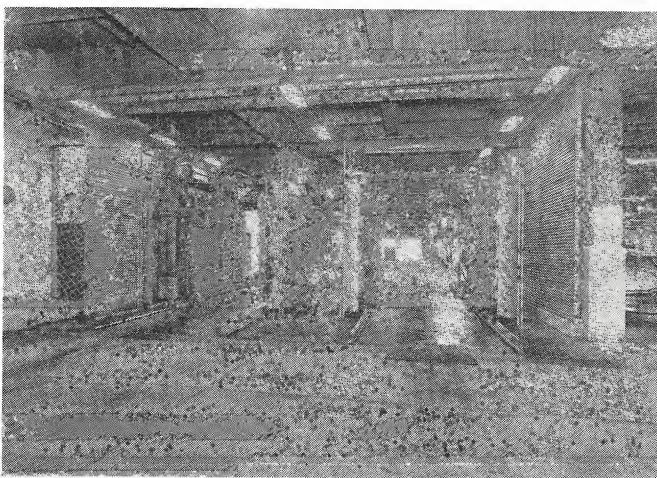
1. East New York Garage

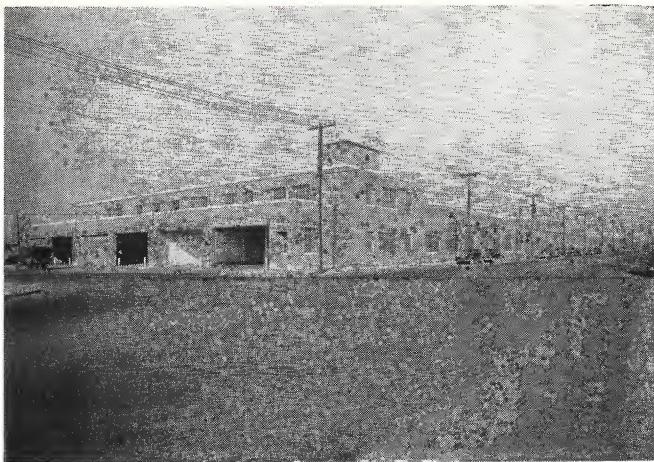
The East New York building also houses the East New York Garage, which stores 210 buses and services 296 diesel buses.

Three fuel dispensing stations insure a minimum of delay in handling incoming buses.

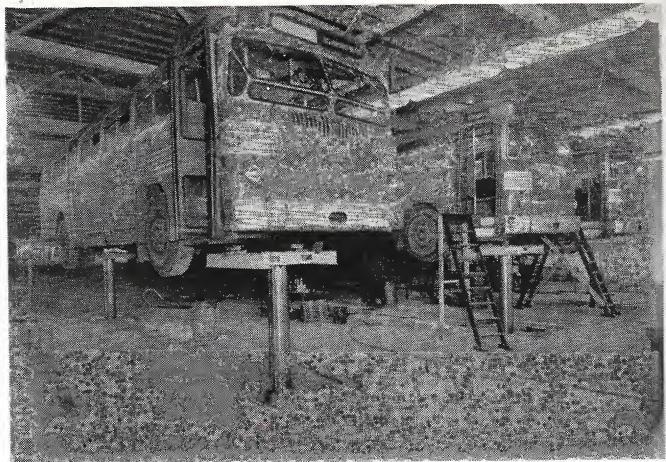
To insure the cleanliness of vehicle exteriors, there are two large washing machines which wash each incoming bus. Each machine is operated by

East New York Bus Garage—Bus Washing Machines.





Flatbush Bus Garage.



Flatbush Bus Garage—Scheduled Operation Area.

the bus driver as he passes through it in forty seconds. Wash water comes from wells capable of furnishing 69 gallons per minute.

Outdoor facilities at East New York yard permit the storage of 58 buses from the garage.

2. Flatbush Garage

Flatbush Bus Service Station and Garage at Utica and Fillmore Avenues, Brooklyn, houses and provides for inspection and light maintenance of 208 diesel buses. Opened in 1950, it is one of the largest city-owned service garages.

3. Ulmer Park

Ulmer Park Service Station and Garage at 25th and Harway Avenues, is almost a duplicate of the Flatbush Garage except that it is slightly smaller. It accommodates 200 buses and began operations in 1950. Its employees service a total of 306 gasoline-fueled buses.

4. Flushing Garage

The Flushing Service Station and Garage, near Roosevelt Avenue between 123rd and 126th Streets, Queens, has a storage capacity of 250 buses and ample, modern facilities for its maintenance personnel. Presently assigned to it are 274 diesel buses.

5. Castleton Garage

At Castleton and Jewett Avenues, Staten Island, is located the Castleton Avenue Service Station and

Garage. It is capable of housing 200 of its assigned 232 buses, both diesel and gasoline powered.

6. Brook Street Garage

Brook Street Garage at Brook Street, west of Pike Street, Staten Island, is capable of housing 100 buses. Its 41 employees are primarily engaged in bus maintenance and body work on buses housed here and at Castleton Garage.

7. Crosstown Garage

Crosstown Bus Service Station and Garage at Commercial Street near Manhattan Avenue, Brooklyn, services 103 diesel buses.

These above modern maintenance facilities combine the very latest features presently in use in the industry.

Other less modern bus garage facilities exist in:

- a) Manhattan, two small garages at 100th Street and 108th Street and First Avenue, and a parking lot at 128th Street and Second Avenue, from which 183 diesel buses are operated and maintained.
- b) Queens, at South Road east of 165th Street and an outside parking lot at 177th Street and Liberty Avenue from which 177 diesel buses are maintained and operated.
- c) Brooklyn
 1. At West 5th Street and Neptune Avenue Annex, Coney Island, where 121 buses are operated and maintained.

2. Fifth Avenue and 36th Street where 240 diesel buses are operated and maintained.
3. DeKalb and Seneca Avenues and Annex at Nostrand and Atlantic Avenues, where 198 service trucks and cars are serviced and maintained.

Facilities For Trolley Coaches

For housing and servicing trolley coaches, two car houses have been provided:

1. Bergen Street Car House

The Bergen Street Car House at Dean Street and Troy Avenue, Brooklyn, is a modern plant for housing 122 trolley coaches and servicing 200 trolley coaches. It has been in commission since 1948. There are 100 coaches equipped with GE motors and con-

trols and 100 equipped with Westinghouse motors and controls.

2. DeKalb Shop

The DeKalb Repair Shop at DeKalb and Seneca Avenues, Queens, has a working force engaged in scheduled and unscheduled trolley coach major repairs.

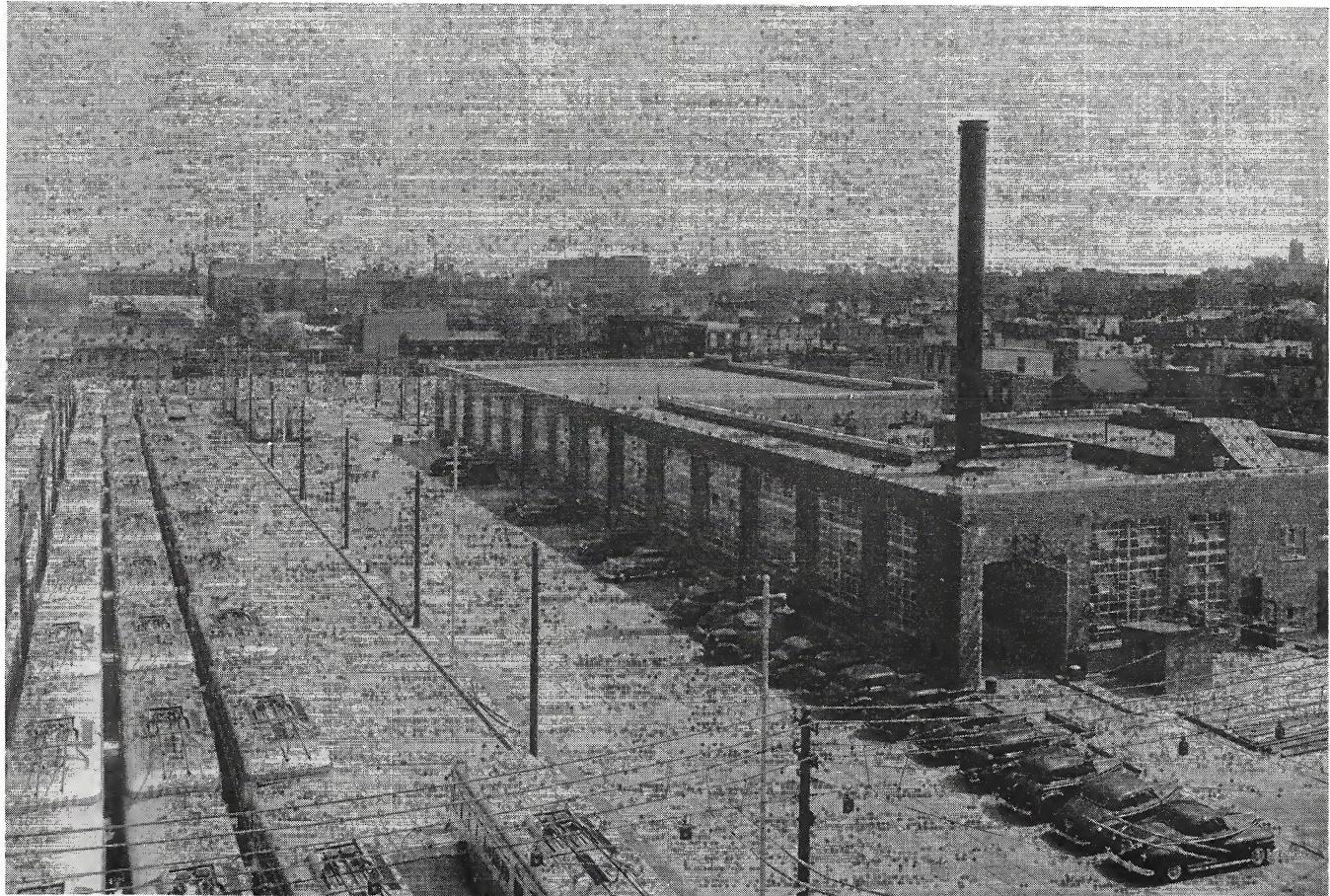
Facilities For Trolley Cars

At the Ninth Avenue Car House at Ninth Avenue and 20th Street, Brooklyn, 100 PCC type and 20 Brill trolley cars are housed and maintained.

Improvements In Methods and Procedures

The main objective in the program for improving methods and procedures is to furnish uninterrupted vehicle service from one garage inspection to the next.

Bergen Street Trolley Coach Yard and Shop.



To accomplish this, scheduled operations have been revised to provide standardized and more thorough inspection and repair of all vehicles, both at the East New York Base Shop and the various garages.

It is recognized that accurate, up-to-date and readily available records are essential to an effective maintenance program. Procedures for recording all factors of vehicle and plant maintenance and performance are being standardized in all divisions of the Surface Maintenance Department. Due to this record standardization, the Record Control Section is enabled more comprehensively to analyze the condition of the bus fleet. Procedures are being revised to provide systematic vehicle and plant cleaning schedules. Painting procedures and schedules have been revised further to improve vehicle appearance.

Skilled employees recondition salvable maintenance material. Efforts are being made to expand the salvage program to obtain greater material savings. Evaluated in terms of the cost of new equipment against the cost of the salvage operations, the material rehabilitation program is expected to save the Authority several hundred thousands of dollars annually.

Purchase Of Equipment

The purchase of new equipment including buses, engines, machinery, tools, etc., is a carefully controlled matter, guided by the policy that no expenditure of funds or budgetary allotment is to be recommended unless it is economically sound to do so.

Each bus, machine or tool, has a limited life potential, varying with the use to which it is subjected. It is based upon that carefully calculated life expectancy that most heavy maintenance equipment is purchased. Accordingly, purchases of capital equipment are usually anticipated to enable maintenance management to plan ahead to maintain its equipment in reasonably up-to-date condition.

Surface Transportation

Surface transportation includes the physical op-

eration of buses, trolley coaches and street cars originating from twelve operating Depots. Seven in Brooklyn: 5 bus; 1 Trolley Coach and 1 Trolley Car; three bus depots are in Queens; and 1 bus depot in each of the Boroughs of Manhattan and Staten Island. From these twelve Operating Depots, 2,140 buses, 200 trolley coaches and 120 trolley cars commence their daily operation of an aggregate average of 213,000 miles per day in the transportation of approximately 1,225,000 surface passengers per day in the five boroughs of the City of New York.

Personnel required for this operation number some 7,000 employees, with annual payroll costs of approximately \$32,000,000.

Modification of Routes

On May 1, 1954, Route B/45—St. Johns Place, was modified to the extent of discontinuance of operation from St. Johns Place and Ralph Avenue to Liberty and Pennsylvania Avenues. Coincident with this modification, that portion of Route B/40—Ralph Avenue from Rockaway Avenue to Hege-man Avenue was eliminated and rerouted from Rockaway and Liberty Avenues to Liberty and Pennsylvania Avenues.

On May 4, 1954, Route B/65—Bergen Street, was modified to the extent of one-way operation, southbound, on Court Street between Bergen and Sackett Streets and one-way operation, northbound, on Smith Street between Union and Bergen Streets instead of both ways on Smith Street, in order to conform with the plan of the Department of Traffic for one-way street traffic regulations on both Smith and Court Streets.

The following items are projected for early action:

Route B/12—East New York Avenue—
Reroute through Clarkson Avenue for benefit and convenience of patients and personnel of Kings County Hospital.

Route B/17—Remsen Avenue— Eliminate leg to Rockaway Parkway and Seaview Avenue via Glenwood Road and Rockaway Parkway since this

area is served by Route B/42—Rockaway Parkway.

Route B/29—Meeker-Marcy Avenues; Reroute through Kingsland and Maspeth Avenues to provide service for Greenpoint Hospital and Cooper Park Housing Development.

Route B/75—Smith Street; In order to conform with the one-way street traffic plan of the Department of Traffic, this route will be operated southbound along Court Street between Livingston and 9th Streets.

Route R/107—Forest Avenue; To provide service for Mariners Harbor Housing Development.

Route B/60—Wilson Avenue; From Rockaway Parkway Rapid Transit station to Breukelen Housing Development.

Route Q/44A—Union Turnpike; To provide service to Jewish Medical Center north of Union Turnpike on 76th Avenue.

Discontinuance of Routes

Route B/66—Court Street; In order to conform with the one-way street traffic plan of the Department of Traffic and to avoid duplication of operation, this route will be discontinued and Route B/75—Smith Street will operate southbound on Court Street between Livingston Street and 9th Street.

Service Changes

Since July 1, 1953 there has been a reduction in mileage due to revision of schedules as follows:

Brooklyn	1,952,704 miles
Staten Island	153,868 miles

Due to closing of the parking lot at 165th Street and Liberty Avenue four bus lines were transferred

from Jamaica Depot to Flushing Depot with resulting increase of 249,028 miles annually.

The discontinuance of the Third Avenue Elevated Line spur to Park Row necessitated extra bus service to accommodate passengers who travel south of Chatham Square, present terminus of the Third Avenue Line, resulting in a mileage increase of 15,470 miles annually.

The following projected items reflect anticipated mileage reductions:

Route B/17—Remsen Avenue; Elimination of leg to Rockaway Parkway and Seaview Avenue will result in an annual reduction of 171,000 miles.

Route B/65—Bergen Street; Partial discontinuance between Court Street and Ferry Place, nights, Saturdays and Sundays will result in an annual reduction of 36,000 miles.

Route B/66—Court Street; Discontinuance will result in an annual reduction of 200,000 miles.

Route Q/3A—Jamaica-114 Avenue; Reduction in service between Springfield Boulevard and Colfax Street and between 227th Street and 113th Drive will result in an annual reduction of 7,200 miles.

Route Q/44B—Malba Shuttle; Discontinuance of service during base period and on Sundays will result in annual reduction of 10,000 miles.

Economies

Since July 1, 1953 operating economies, personnel consolidation and centralization have been placed in effect which accomplished savings of about \$967,000 per annum. Further study of the Surface System indicates the possibility of accomplishing additional economies by reducing certain bus operations consistent with adequate service requirements. This matter is now under intensive study.

V

ADMINISTRATION, FINANCIAL AND STATISTICAL

LAW, REAL ESTATE AND CONCESSIONS

THE Law and Real Estate Department is directed by the General Counsel of the Authority. It is organized in five major functional divisions — General Law Section, Transportation Torts Division, Workmen's Compensation Bureau, Real Estate Division and Concessions Division. The Department quota is 389 employees and its budget for the fiscal year ended June 30, 1954 was \$2,058,159.

During the year there were two actions initiated by the Authority and 23 actions or special proceedings brought against the Authority. A total of 189 employee disciplinary cases were processed by the department during the year, resulting in 78 dismissals, 59 suspensions, 30 resignations and 11 demotions. In twelve cases appeals from the decisions of the Authority were taken to the Municipal Civil Service Commission but none of the decisions were modified by the Commission.

During the 1953-54 fiscal year the Law Department negotiated with representatives of The City of New York two major agreements—one in relation to the disposition of tort actions and claims pending against the Board of Transportation on June 14, 1953 when it ceased operation of the transit facilities of the City; and the other the determinations as to which parcels of real estate that had been under the jurisdiction of the Board of Transportation were necessary for and incidental to the operation of the transit facilities and therefore became part of the property leased to the Authority under the Agreement of Lease dated June 1, 1953 between the City and the Authority.

Under the first agreement the Authority agreed to continue to process with its employees the tort

claims and actions, Workmen's Compensation claims and other actions pending against the Board of Transportation as of June 14, 1953 and the City agreed to pay the Authority the sum of \$1,204,583 to compensate for the use of the Authority's employees for this purpose during the period from June 15, 1953 to June 30, 1954, and in addition to pay all other costs directly allocable to such claims and actions. This agreement made it possible for the Authority to maintain intact the staff of experienced and efficient trial lawyers, claim adjusters and investigators which had been built up over a long period of years so that it will be available in the future to dispose of actions against the Authority when the court calendars have been cleared of actions against the Board of Transportation and the actions against the Authority are reached for trial. In June 1954, a new agreement was negotiated with the City on behalf of the Authority continuing the arrangement for another year to June 30, 1955.

Transportation Torts

The Transportation Torts Division with 314 employees and an annual budget of \$1,394,378.48 passes upon all claims and suits for personal injury and property damage arising from the operation of the surface and rapid transit lines of the New York City Transit Authority. For the printed budget 1953-54, this division was allocated 349 employees and a labor budget of \$1,504,688. There has been a reduction of 35 positions and \$110,305 in the budgetary allowance of this division during the fiscal year.

Under the June 1, 1953 Agreement of Lease between the City and the Authority, the City assumed all liability for undisposed claims and ac-

tions arising out of accidents which occurred prior to June 15, 1953. The Torts Division is processing these pending claims and actions against the City, and all work in conjunction with City litigation is included in this report. The activities of the division in respect to City cases and in respect to Transit Authority cases are summarized as follows:

New York City (Board of Transportation) Cases

During the period from July 1, 1953 and ended June 30, 1954 this division received 693 claims for personal injury and property damage. 1,786 claims were settled and paid in the amount of \$481,494.64. In the same period this division disposed of 3,631 actions in various courts. The total actions disposed of included 2,133 settlements, 193 verdicts in favor of claimants, 212 verdicts in the City's favor, 757 dismissals and 336 discontinuances. The total amount of settlements of actions and judgments was \$3,897,903.48. The total amount paid for claims and actions disposed of was \$4,379,398.12.

Transit Authority Cases

During the period from June 15, 1953, and ended June 30, 1954, this division received 7,297 claims for personal injury and property damage. 2,236 claims were settled and paid in the amount of \$407,959.45. In the same period this division disposed of 33 actions in various courts. The total actions disposed of included 16 settlements, 8 verdicts in favor of claimants, 4 verdicts in the Authority's favor, 4 dismissals and 1 discontinuance. The total amount of settlements of actions and judgments was \$4,595.97. The total amount paid for claims and actions disposed of was \$412,555.

Workmen's Compensation

The Workmen's Compensation Bureau had a quota of 30 employees with a total payroll of \$132,545.42 during the 1953-1954 fiscal year. Its workload of Transit Authority claims (including all Board of Transportation compensation claims pending at June 14, 1953) for the period from June 15, 1953 to June 30, 1954 was:

	For Transit Authority	For Board of Transportation
Number of Active Death Cases requiring payments	5	330
Number of Death Cases — liability not yet determined	2	12
Number of Active Injury Cases requiring payments	59	265
Number of Active Injury Cases—liability not yet determined.....	113	65
Number of Closed and Disallowed Cases	361	1,016
Number of Injury Cases pending (including controversial cases listed above)	757	1,620
Number of accident reports received after June 14, 1953	8,779	195

In connection with the processing of these cases the Bureau staff engaged in 1,310 investigations (150 for Authority and 1,160 for Board cases) and 4,005 hearings before the Workmen's Compensation Board (704 for Authority and 3,301 for Board cases).

Real Estate

One of the major activities of the Real Estate Division during the fiscal year 1953-1954 was the classification of all real property that had been under the jurisdiction of the Board of Transportation on March 15, 1953, to determine which property should be retained by the Authority and which should be surrendered to the City under the terms of the Agreement of Lease between the City and the Authority. As a result of these studies, the Authority will retain as "Leased Property" all real estate used in connection with the operation of the transit system, such as railroad yards, shops, power houses, substations, terminals, garages, etc., and all rentals received from such properties will be credited as transit income. This includes all rentals derived from stores in station buildings within the right-of-way area; rents derived from leased spaces in terminals; rents derived from rental of ducts or pole lines or other attachments to railroad structures, and rents derived from lands and structures of three specified properties in Brooklyn. There are about 112 parcels of rented real estate in this

category, occupied by 180 tenants who pay an aggregate annual rental of about \$300,000. In addition, more than \$170,000 is received annually from duct line rentals, station entrance and passageway agreements, etc. These make a total of over \$470,000 rentals credited to transit income. In addition, there are 121 tenants in 60 rented properties paying rentals aggregating more than \$137,000 per annum, which is collected by the Authority and remitted to the City, less directly allocable costs and expenses incurred in the maintenance of these properties. Annual rentals of \$26,283.50 are also collected from 47 tenants of property owned by South Brooklyn Railway Company.

During the fiscal year, sixty renewal leases were arranged and thirty-two new lettings consummated at annual rentals respectively of \$119,195 and \$39,456.

Under the provisions of Sections 2.4 and 2.5 of the Lease Agreement between the City and the Authority, the Authority surrendered to the City 245 parcels of real estate not required in the operation of the transit facilities, with rentals of \$327,264 per annum. Eighty-seven parcels were surrendered under the provisions of Section 2.4 of the Lease Agreement as real estate declared by the Board of Transportation to the Board of Estimate to be property not used in connection with the operation of the leased property, and about one hundred of the remaining parcels were surrendered under the provisions of Section 2.5 of the Lease Agreement representing Norton's Point right-of-way land, Brooklyn-Richmond freight and passenger tunnel properties in Staten Island, properties under permit to the Park Department and held by or for other City agencies, together with twenty-five parcels of properties severed from larger areas.

Fire insurance in the amount of \$170,525 is furnished by thirty-two tenants as provided under the terms of their leases, and both the Authority and the City are protected by public liability insurance furnished by, and at the expense of, all tenants of the rented real estate, to the extent of \$18,825,000 covering injury or death to one person, and \$56,400,000 covering more than one person.

The Liberty Avenue Connection, Rockaway Line, Route 119-G, Queens, was validated in December 1953, and during the fiscal year request was made to the City for acquisition for transit purposes of eight parcels of real estate having a total assessed valuation of \$407,075. Several privately-owned properties were rented for field offices, outdoor bus storage, and washroom and toilet facilities for bus operators.

In the past fiscal year, due to resignations and transfers (without replacements) the personnel of the Real Estate Division has been reduced by ten employees, resulting in a payroll reduction of over \$30,000 per year. At present this Division has fifteen employees and its annual payroll is \$67,110.

Two hundred and forty-five parcels with annual rentals of \$327,264 were surrendered to the City as property not required for, or in connection, with the operation of the transit system.

Concessions

Concession revenue for the fiscal year ended June 30, 1954 was the highest ever received, totaling \$5,043,183.42. This compares with \$4,829,839.02 for the fiscal year ended June 30, 1953. It is interesting to note that in a section of the last published report of the former Board of Transportation for the period ending June 30, 1949 concerning concession revenue, it was stated:

"The development and creation of additional concession revenue has been intensified. Considerable missionary work has been accomplished to increase the revenues derived from privileges which are permissible under the law".

The concession revenue for that fiscal year was \$4,298,561.38.

This substantial increase in revenue is all the more gratifying in view of the decline in passenger traffic in recent years. Then, too, the five-year period just ended has been an era of rising costs of both wages and materials, and these factors have had an adverse effect upon the revenue obtained from some of our older type of concessions.

The year ending June 30, 1954 also brought about an important change in the operation of the Concession Division, as prior to June 15, 1953, our



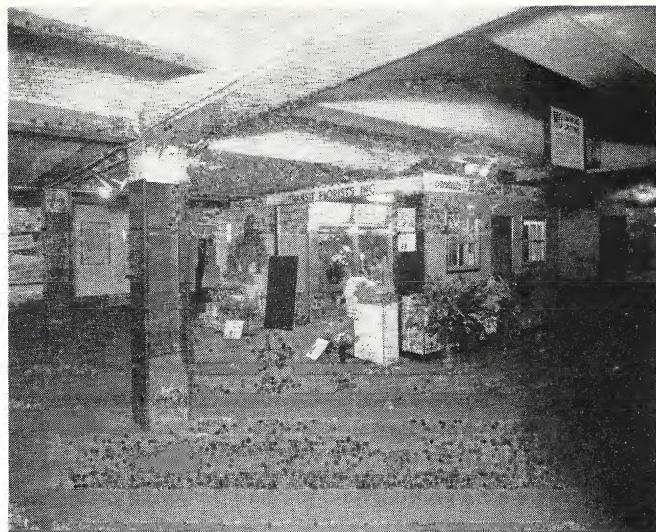
Newspaper, Candy & Periodical Stand—179th St. and Hillside Ave. Station, IND Div.

activities were curtailed due to the limitations on the types of concessions permitted in the Transit System by the Rapid Transit Law. The pertinent language contained in the Rapid Transit Law was as follows:

"32-B. No part of any road, or of its structures and appurtenances, constructed under the authority of this chapter, shall be used for advertising purposes or for any trade, traffic or occupation, other than required for the operation of such road, except such advertising and such sale of newspapers, periodicals, magazines, books, flowers, confectionery and other similar articles usually sold in railway stations, as from time to time, always with the right of revocation, may be permitted by the Board of Transportation".

The enactment of the Law setting up the New York City Transit Authority deleted this restrictive language. For the first time, consideration can be given to new types of concessions and the sale of products which might be particularly adapted to the fast moving passenger traffic flow found in our stations.

It must be recognized that the transit system was constructed without any thought being given to the prospect of providing areas for concession use. This is particularly true at all major stations, such as Grand Central and Times Square. There is demand for additional concession areas at these stations but no available space. Ingenuity to a high



Transit Florists—50th Street and 8th Avenue Station, IND Div.

degree was required to provide the concession areas found at these stations.

Constant efforts are made to use the limited amount of space available on stations and mezzanines to better advantage and to create additional areas for concession use. All of this has been a substantial factor in the increased record of earnings. Two specific examples are the shifting of lockers and telephones, and the relocation of railings, which created a space which will produce an estimated revenue of \$10,000 per annum, as compared to a revenue of about \$1200 per annum previously received.

In the other case, after a preliminary survey of the market, additional frames were installed on the side swing sash of the R-1 to R-10 type IND cars to hold four car cards. These locations have proved to be desirable ones, and are contributing a substantial amount of revenue since the completion of the installation during the latter part of 1953.

There are approximately 12,000 vending machines installed on the New York City Transit System. Penny vending machines dispensed almost 200 tons of peanuts and more than 150,000,000 pieces of gum and chocolate. There are about 246 newsstands in operation, and slightly over 500 drink vending machines installed. There are 18 candy shops, nine snack bars and 15 flower stands at major stations on the Transit System.

PERSONNEL

Through the Personnel Department, the Transit Authority is assured of compliance with the mandates of the law and rules and regulations of the Municipal Civil Service Commission on matters pertaining to the Civil Service status of all its employees.

In order to have the required complement of manpower to carry on the functions of planning, constructing, purchase of materials and operation of the transit facilities of the City, constant vigilance is maintained to see that qualified personnel is provided within the budgetary limitations as prescribed in the Operating and Construction budgets. The Personnel Department also ascertains that all provisions and directives of the Civil Service Law

have been complied with, and that all directives and resolutions of the Authority appertaining thereto are properly executed. The status of approximately 43,000 employees in 181 different titles is under constant review. The Personnel Department prepares the weekly employees calendar containing a complete record of all personnel changes. Roster cards with each employee's personnel record are also maintained by this department.

From vacancy statements prepared by the Personnel Department, quotas for the New York City Transit System and for the Construction Division of the Authority are maintained for filling vacancies from civil service eligible lists, departmental provisional lists and provisional applications filed at the Personnel Department.

SUMMARY OF ALL EMPLOYEES

Year Ended—June 30, 1954

Total Employees in the New York City Transit System on June 30, 1953.....	43,731
Incoming Employees	4,302
Outgoing Employees	<u>4,963</u>
Net Decrease in Personnel	661
Total Employees in the New York City Transit System on June 30, 1954	<u>43,070</u>
Annually Rated Employees:	
Operating	3,835
Operating-Engineering- Administrative, Legal-Clerical, etc.	<u>2,491</u>
Total Annually Rated	6,326
Hourly Rated Employees	36,740
Daily Rated Employees	<u>4</u>
	<u>43,070</u>
Number of Permanent Employees in service	42,101
Number of Provisional Employees in service	<u>969</u>
	<u>43,070</u>

PURCHASE AND STORES

The Purchase and Stores Department is responsible for the purchase and maintenance of stores of all materials and supplies used by the Transit System. The Budget for this department is 381 employees and \$1,472,500.

During the current fiscal year, the personnel and operations of the Printing Bureau, Surface Transportation Fuel Bureau and Power Fuel Bureau

were transferred to the Purchase and Stores Department to centralize all purchasing functions. Thus, annual purchases amounting to \$12,800,000 were added to the Purchasing Department's present purchases.

A reduction in personnel of 26 employees resulted in approximately \$93,000 savings per year.

A Commodity Classification Program was inaugurated on January 1, 1954, putting into effect a contract with Remington-Rand, Inc. This program

will set up a uniform stock numbering system, thereby eliminating duplication of many items and revealing inactive and obsolete stock.

A study is now in progress relative to the establishment of a centralized control and machine accounting system for the Stores Division to be put into effect after completion of the Commodity Classification Program.

In the past fiscal year 16,500 open market orders have been issued in the total sum of \$19,000,000. The sum of \$925,000 has been realized from the sale of scrap and obsolete materials and equipment.

An estimate of \$30,000,000 is forecast as cost of purchases during the next year.

REVENUE DEPARTMENT

For the year ended June 30, 1954, the total operating revenues received and deposited totalled \$277,764,410. Moneys not currently required for payrolls and operating expenses have been placed in Time Deposit Accounts in various banks, at interest, with 30 days' notice of withdrawal reserved by the Authority, and will produce an income of \$159,750 per annum. Investments in U.S. Treasury Bonds were also made to the extent of \$7,500,000, which will yield interest of \$178,125 per annum.

The Authority's Revenue Department has custody of securities for guarantee funds and investments; also jurisdiction and supervision of securities deposited as collateral to guarantee moneys on deposit with the respective banks, aggregating approximately \$80,000,000. The Department has been designated by the Authority to handle all insurance matters.

The Revenue Department's Money Room receives, opens, counts, verifies and makes daily deposits of passenger revenue from rapid transit lines. This amounts to approximately \$4,200,000 weekly, contained in 62,000 bags of bills and coin remitted by the railroad clerks and consists of approximately 70 tons of coin and \$2,000,000 in one dollar bills. In addition, approximately 5,000 bags of tokens are received weekly from booths holding an excess over their normal sales requirements.

With the use of tokens on the rapid transit system, a new problem presented itself, in that tokens

of other transit companies of the same size as the Authority's token were received through the turnstiles. The Revenue Department, after a study of the methods of redemption and exchange of these tokens, recommended that the Authority act as its own exchange and deal directly with the other transit companies, thus giving the Authority the greatest return in redemptive value. The Authority approved the recommendation, and this function was absorbed by clerical employees in the Revenue Department without any additional personnel. As of June 30, 1954, the Authority received 271,290 tokens of over 400 different companies. These tokens must either be redeemed, exchanged or set aside as non-redeemable. A total of 243,302 tokens have been shipped to 116 companies for redemption or exchange. Of this number, 173,383 have been redeemed for \$21,088 and 13,975 have been exchanged on a token basis. In addition, 1,509 tokens of other companies have been sold for \$226 to token collectors at 15¢ each. There remains a balance of 50,612 tokens shipped to other companies, in process of redemption or exchange. The Authority has realized a total value of \$23,410 in the exchange and redemption transactions to June 30, 1954, and the average over-all redemption and exchange return in completed transactions is 12.4¢ per token.

PAYROLLS

The control of timekeeping and the production of payrolls for an estimated 37,850 hourly rated employees weekly and 5,400 annually rated employees semi-monthly require the services of 205 employees. A swiftly functioning Payroll Department and timekeeping structure provides for the collection of time reports from the operating locations over the vast network of the transit system serving the five boroughs of the City.

The time sheets, time cards, payrolls, pension schedules and Health Insurance Plan schedules are printed on Addressograph machines after all personnel changes which affect the payroll status of employees are made. The pay checks and earnings records are prepared on 18 National Cash Register



Addressograph Machine Section of the Payroll Department.



National Cash Register Machine Section of the Payroll Dept.

payroll machines and finally balanced by clerks who prove the payrolls and pay checks.

Employees' Pensions Under Company Agreements

One of the obligations assumed by the City when it purchased the IRT and BMT Systems under the Transit Unification Plan of 1940, was to continue the pension agreements made by the private companies and the unions.

Since unification, June 1, 1940, the pension agreements have been modified and approved by the Board of Estimate of the City of New York, re-

ducing minimum retirement age limit from 65 years to 60 years and increasing the credits from 1% per year of service to 1½%, and adding the service credit from July 1937 to June 1940.

The estimated liability of the City of New York, for the former Company pension plans as of June 30, 1954 for employees on the IRT or BMT Systems for service prior to July 1937 is as follows:

BMT 5,803 employees....\$187,742 per month
IRT 7,873 employees....\$270,088 per month

The number of pensioners and amount of the pension payrolls have increased as follows:

EMPLOYEES' PENSIONS **(under Company Agreements)**

	IRT	BMT
Number of Pensioners, June 1, 1940.....	819	806
Number of Pensioners, June 30, 1954	1,932	1,579
Per Cent of Increase.....	135%	96%
Monthly Pension Payroll, June 1, 1940.....	\$ 49,949	\$ 42,284
Monthly Pension Payroll, June 30, 1954	\$116,530	\$ 80,935
Per Cent of Increase.....	133%	91%
Average Monthly Pension, June 1, 1940.....	\$60.99	\$52.46
Average Monthly Pension, June 30, 1954.....	\$60.83*	\$51.26

In accordance with the law and under the lease with the New York City Transit Authority, the City of New York has assumed full responsibility for the payment of Employees' Pensions under Company Agreements.

IRT Voluntary Relief Fund

The Voluntary Relief Department was inaugurated by the Interborough Rapid Transit Company on February 1, 1907 to establish a fund to be known as a Relief Fund for the payment of definite amounts to employees who contribute to the fund as members under certain regulations. Payments are made when employees are disabled by accident or sickness or, in the event of death, to relatives as beneficiaries specified on employee's application for membership. Employees' enrollment as members of the IRT Voluntary Relief Fund was terminated August 1, 1947.

The membership as of June 30, 1954 was 4,059 employees and 968 pensioners, a total of 5,027.

Gross receipts received from members during the year ended June 30, 1954 totalled \$51,768.58 as against payments for accidents, sickness and death benefits totalling \$67,617.85. The cash and par value of securities on hand was \$208,032.39.

Health Insurance Plan

Membership in the Health Insurance Plan of Greater New York was made available to employees of the former Board of Transportation by resolution of the Board adopted on October 5, 1948.

The membership as of June 30, 1954 is 28,628 employees at an estimated cost to the Transit Authority of \$175,566 per month or \$2,106,797 per year. The average cost to the Transit Authority is \$6.13 per employee member per month.

Employees' Organization Dues

The New York City Transit Authority continued the policy of the former Board of Transportation

to accept voluntary authorizations from employees to have employee organization dues deducted from their pay. The Payroll Department continued to make payroll deductions once a month upon proper authorization by the employees.

These dues amounted to \$81,523 per month for approximately 32,328 employees who are members of four employees' organizations as of June 30, 1954.

The Transit Authority withholds 16¢ for each deduction made on the payrolls, totalling approximately \$5,000 per month to cover all expenses incurred by the Authority in carrying out this deduction plan for various employee organizations. Any excess of amounts withheld over expenses is refunded to the various organizations with a detailed accounting statement made every six months.

Withholding Tax

During the calendar year ended December 31, 1953 there was withheld from the wages of employees the sum of \$19,618,141 for federal income taxes. This necessitated the writing of 46,527 Forms W-2 which were completed, balanced and delivered to the Director of Internal Revenue and to the employees on February 1, 1954.

New York City Employees' Retirement System

The Transit Authority's contribution to the Retirement System for its share of employees' pensions, is paid out of its operating revenues and was \$22,525,079.53 in the 1953-54 fiscal year.

Approximately 37,500 weekly employees and 6,000 annually-rated employees (including Construction Division) are members of the New York City Employees' Retirement System. Employees are eligible to borrow up to 40% of their accumulated deductions after three years of membership. These loans are repayable by payroll deduction.

**SUMMARY OF HOURLY RATED
EMPLOYEES IN TRANSPORTATION,
MAINTENANCE OF WAY,
CAR MAINTENANCE AND POWER
DEPARTMENTS BY RATES**

40 Hour Week			
Rate Per Hour	Number of Employees	Weekly Earnings	Annual Earnings
\$2.27	147	\$90.80	\$4,739.76
2.26	231	90.40	4,718.88
2.21	22	88.40	4,614.48
2.20	911	88.00	4,593.60
2.17	29	86.80	4,530.96
2.15	2,636	86.00	4,489.20
2.14	6,797	85.60	4,468.32
2.09	30	83.60	4,363.92
2.08	545	83.20	4,343.04
2.03	832	81.20	4,238.64
2.02	1,237	80.80	4,217.76
1.97	126	78.80	4,113.36
1.96	7,693	78.40	4,092.48
1.90	151	76.00	3,967.20
1.89	98	75.60	3,946.32
1.84	875	73.60	3,841.92
1.83	1	73.20	3,821.04
1.82	551	72.80	3,800.16
1.805	2,585	72.20	3,768.84
1.77	11	70.80	3,695.76
1.76	1,251	70.40	3,674.88
1.745	9	69.80	3,643.56
1.74	1	69.60	3,633.12
1.72	39	68.80	3,591.36
1.71	6	68.40	3,570.48
1.70	1,205	68.00	3,549.60
1.685	4,992	67.40	3,518.28
1.661	476	66.44	3,468.17
1.64	44	65.60	3,424.32
1.625	2,580	65.00	3,393.00
1.565	629	62.60	3,267.72
Total	36,740		

Note: All earnings are based on straight time.

**SUMMARY OF WEEKLY WAGE
EARNINGS**

Range per Week	Number of Employees	Per Cent of Total
Under \$65.00	629	1.71
\$65 to \$69.99	9,352	25.45
\$70 to \$74.99	5,274	14.36
\$75 to \$79.99	8,068	21.96
\$80 to \$84.99	2,644	7.20
\$85 to \$89.99	10,395	28.29
\$90 and over	378	1.03
Total	36,740	100.00

ACCOUNTING DEPARTMENT

Rates of Fare

Until June 30, 1948 the Board of Transportation operated on a 5 cent fare, which resulted in a deficit for that fiscal year of \$31,000,000.

Effective July 1, 1948 the rate of fare was increased to 10 cents on Rapid Transit Lines and 7 cents on Surface Lines, with a combination fare rate of 12 cents.

On July 1, 1950, the rate of fare was adjusted to 10 cents on Surface Lines and the combination fare increased to 15 cents. The rate on Rapid Transit Lines remained at 10 cents.

Effective July 1, 1952 the combination fare was discontinued. The other rates of fare continued at 10 cents.

These rates of fare continued in force through July 24, 1953. On the eve of operation by the Authority, the Results of Operation for the period from July 1, 1952 to June 14, 1953 indicated an operating deficit of \$44,782,998.96. For the period from June 15 to June 30, 1953, the initial period of operation by the Authority, the operating deficit was \$1,306,035.03 or a total operating deficit for the 12 months of \$46,089,033.99.

By the enactment, on March 25, 1953, of Chapters 200 and 201, Laws of 1953 of the Public Authorities Law, Title 15, the New York State Legislature created the New York City Transit Authority.

Section 1805 of the Laws empowers and directs the Authority to fix or adjust the rate of fare, as may in their judgment be necessary to produce sufficient revenue to meet the expenses of the operations of the Authority and to maintain such operations on a self-sustaining basis. Excepting the year 1953, any rate of fare change becomes effective on a specified date between January 1 and June 30, or on July 1 of any year.

In order to place the operations on a self-sustaining basis as required by Law, the Authority immediately started an intensive study of the fare problem. Reports were received from outside engineering consultants as well as from its own fiscal officers and operating officials. All possible econo-

mies affecting the operation and maintenance of the transit facilities were fully considered. The fare rate had to be high enough to eliminate the high operating deficits of previous years. A substantial reserve for Deferred Maintenance, set up by the Board of Transportation, was retained by the City of New York under its agreement with the Authority dated June 1, 1953. This necessitated the Authority having to pay the cost of such projects out of current operating revenues. In addition, the Authority had to have total revenues sufficient to cover the expenses from June 15, 1953 to the date of new fare rates.

Hence, after this study of the operations, finances and revenues, the Authority, on July 13, 1953, adopted a resolution establishing the rates of fare to be effective at 12:01 A. M. Eastern Daylight Saving Time on July 25, 1953, which are as follows:

1. On Rapid Transit lines 15 cents, by purchase of a token for deposit in turnstile.

2. On Surface lines 15 cents, except that the present additional charge of 5 cents for transportation across the Whitestone Bridge will be continued.

3. There will be no present change in policy as to transfer privileges in any part of the System.

4. For pupils in elementary or high school grades of public or non public elementary or secondary day schools, requiring transportation when traveling to or from school, the charges for such transportation on school days, subject to rules and regulations from time to time adopted by the Authority, will be as follows:

(a) For those in the elementary grades, a flat charge of \$1.00 per month, whether the riding is on Surface lines or Rapid Transit lines, or both.

(b) For those in high school grades:
5 cents for each one-way trip on a surface line.

15 cents for a round trip on a rapid transit line.

5. Children under six years of age, when accompanied by an adult, will be permitted to

ride, free of charge, on both surface lines and rapid transit lines, in accordance with rules and regulations to be promulgated by the Authority. Subsequently, the Authority determined to modify the resolution to provide for an average 10 cent round trip on rapid transit lines for those in high school grades. On January 7, 1954 the Authority adopted a resolution amending the previous resolution, effective February 1, 1954 by striking out from paragraph 4 thereof, subdivision (b) and substituting the following:

"(b) For those in high school grades: 5 cents for each one-way trip on a surface line.

On a rapid transit line, a rate or rates of fare which shall, as nearly as practicable, for each school term, result in an average fare for the term of 10 cents a round trip on said line for each school day in such school term, the time and manner of collecting said fare or fares to be determined by the aforementioned rules and regulations of the Authority."

Rules and regulations governing special rates of fare were first adopted by Resolution of the Authority under date of July 27, 1953. On January 25, 1954 rules were adopted to provide the average fare for the term of 10 cents per round trip. This was accomplished by granting free entrance to high school pupils both on the trip to school and the trip from school by displaying their eligibility cards, Type No. 2 and Type No. 3, during the period from May 10, 1954 to June 30, 1954, inclusive.

Operating Statistics

To illustrate the magnitude of the transit system operated by the New York City Transit Authority the following data is given for the fiscal year ended June 30, 1954:

The rapid transit lines carry an average of 4,766,019 passengers on week days, the Brooklyn surface lines, 995,968 passengers, the Queens bus lines, 228,126 passengers, Staten Island bus lines, 94,435 passengers and Manhattan bus lines, 113,511 passengers, a total of 6,198,059 passengers on all facilities operated by the Authority.

Of the total passengers transported daily in the City of New York, 76% are carried on city-owned facilities and only 24% on privately operated lines.

Rapid Transit

	IND	BMT	IRT	Total
Manhattan	75.06	40.38	125.68	241.12
The Bronx	23.88	—	92.54	116.42
Brooklyn	65.81	174.80	30.87	271.48
Queens	47.70	27.20	22.37	97.27
Total	<u>212.45</u>	<u>242.38</u>	<u>271.46</u>	<u>726.29</u>

Surface

	IND	BMT	IRT	Total
Depots	12	—	—	12
Vehicles	2,461	—	—	2,461
Weekday Runs	4,066	—	—	4,066
Receiving and Registering Devices	2,661	—	—	2,661

With 6,600 daily reports of passenger revenue and 43,800 employees to be paid, the task of audit, control and accounting is tremendous and upwards of 475 cashiers, auditors, accountants, statisticians and clerks are employed.

ROUTE AND TRACK MILEAGE:

Rapid Transit Lines

The rapid transit divisions of the New York City Transit Authority consist of 236.24 route miles of various types of construction — underground tunnel, 133.28 miles; elevated structure, 86.31 miles; in open, not on structure, 16.65 miles.

The distribution of the route mileage by Divisions and Boroughs is given below:

Rapid Transit Route Miles

	IND	BMT	IRT	Total
Manhattan	21.52	14.98	39.06	75.56
The Bronx	9.49	—	30.68	40.17
Brooklyn	20.02	59.37	10.52	89.91
Queens	11.79	11.08	7.73	30.60
Total	<u>62.82</u>	<u>85.43</u>	<u>87.99</u>	<u>236.24</u>

Rapid Transit Track Miles

	IND	BMT	IRT	Total
Manhattan	75.06	40.38	125.68	241.12
The Bronx	23.88	—	92.54	116.42
Brooklyn	65.81	174.80	30.87	271.48
Queens	47.70	27.20	22.37	97.27
Total	<u>212.45</u>	<u>242.38</u>	<u>271.46</u>	<u>726.29</u>

In addition to the running track there are 115.92 miles of yard track, of which 51.32 are on the IND Division; 29.69 on the BMT Division and 34.91 on the IRT Division.

The total miles of track operated and maintained in the rapid transit operation is 842.21 of which 263.77 are on the IND Division; 272.07 on the BMT Division and 306.37 on the IRT Division.

There are 507 stations on the rapid transit lines. Of these stations, 476 have separate passenger controls and 31 are within the controls of the 14 free inter-divisional transfer points that were established on July 1, 1948. Of the 476 divisional stations, 107 are on the IND Division, 164 on the BMT Division and 205 on the IRT Division. Of the 14 transfer points, three permit transfers between the IND and IRT Divisions; four are between the IND and BMT Divisions; five are between the BMT and IRT Divisions; one permits transfers between 2 IRT lines, an IND and a BMT line and one allows transfers between an IND line and 2 BMT lines. The 31 stations included in the transfer points include 9 on the IND Division, 12 on the BMT Division and 10 on the IRT Division.

The passengers of the rapid transit lines are carried on 5,834 operating units, equivalent to 6,575 cars, as shown in the following tabulations:

NEW YORK CITY TRANSIT SYSTEM

Rapid Transit Passenger Cars

Division	Number of Operating Units			Number of Cars		
	Steel	Wooden	Total	Steel	Wooden	Total
IND:						
Subway	1,960	—	1,960	1,960	—	1,960
Total IND	<u>1,960</u>	<u>—</u>	<u>1,960</u>	<u>1,960</u>	<u>—</u>	<u>1,960</u>
BMT Rapid Transit:						
Subway	740	—	740	1,451	—	1,451
Elevated	—	153	153	—	183	183
Total BMT Rapid Transit	<u>740</u>	<u>153</u>	<u>893</u>	<u>1,451</u>	<u>183</u>	<u>1,634</u>
IRT:						
Subway	2,644	—	2,644	2,644	—	2,644
Elevated	—	337	337	—	337	337
Total IRT	<u>2,644</u>	<u>337</u>	<u>2,981</u>	<u>2,644</u>	<u>337</u>	<u>2,981</u>
Total Rapid Transit:						
Subway	5,344	—	5,344	6,055	—	6,055
Elevated	—	490	490	—	520	520
Total	<u>5,344</u>	<u>490</u>	<u>5,834</u>	<u>6,055</u>	<u>520</u>	<u>6,575</u>

Financial statements with certain supporting statistical data relative to the operation of the transit system are tabulated in the pages which follow.

NEW YORK CITY
Assets and Liabilities of New York City
as of June 30, 1950

ASSETS AND OTHER DEBITS

CURRENT ASSETS

Operating Fund	\$44,732,600.85
Cashier's and Imprest Funds	444,862.36
Investments—U. S. Treasury Bonds at cost (par \$7,500,000.00)	7,468,750.01
Accounts and Interest Receivable	1,171,559.60
Total Current Assets	<u>\$53,817,772.82</u>

MATERIALS AND SUPPLIES

Materials and Supplies	\$20,177,301.65
Less Reserve for Inventory Adjustments	762,432.60
	<u>19,414,869.05</u>

DEFERRED DEBITS

Work in Progress	\$ 1,291,232.97
Prepayments	2,271.34
Other Suspense	258,169.32
	<u>1,551,673.63</u>

SPECIAL DEPOSITS WITH THE AUTHORITY

Deposits by Concessionaires and Lessees—Securities	\$ 729,000.00
Transportation Health Insurance Fund	62,290.80
IRT Voluntary Relief Fund	208,032.39
	<u>999,323.19</u>

TOTAL ASSETS AND OTHER DEBITS	<u><u>\$75,783,638.69</u></u>
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CITY TRANSIT AUTHORITY
New York City Transit System Operations
June 30, 1954

LIABILITIES AND OTHER CREDITS

CURRENT LIABILITIES

Vouchers Payable	\$ 126,534.98
Accounts Payable	14,220,833.19
Accrued Payrolls	7,701,841.68
Settlement due City of New York	295,185.20
Total Current Liabilities	\$22,344,445.05

OTHER LIABILITIES

Loan Payable—City of New York (Note)	\$10,000,000.00
Advance from State of New York	100,000.00
	10,100,000.00

LIABILITY FOR PREPAID TRANSPORTATION

Unredeemed Tokens	\$ 1,142,103.75
Unredeemed Tickets	109,464.17
	1,251,567.92

RESERVES

Public Liability	\$ 2,870,841.66
Workmen's Compensation	965,736.32
Deferred Maintenance	13,079,801.09
	16,916,379.07

FIDUCIARY LIABILITIES

Concession and Leasehold Deposits	\$ 790,079.90
Transportation Health Insurance Plan	62,290.80
Trustee, Voluntary Relief Fund	208,032.39

OTHER DEFERRED CREDITS

WORKING CAPITAL PROVIDED BY CITY OF NEW YORK*	409,895.32
EXCESS OF REVENUES OVER EXPENSES	19,294,481.87

For the period June 15-30, 1953	\$ 1,306,035.03
For the fiscal year ended June 30, 1954	5,712,501.40

TOTAL LIABILITIES AND OTHER CREDITS

	4,406,466.37
	\$75,783,638.69

NOTE: Loan Payable—City of New York:

Under the terms of Sec. 4.3, Article IV, of the Agreement of Lease between the City of New York and New York City Transit Authority, dated June 1, 1953, the City advanced to the Authority \$10,000,000.00, such sum to be repaid to the City in nine (9) equal annual installments commencing July 1, 1954.

* Represents Materials and Supplies as of June 14, 1953, less reserve.
Italic—indicates Deficit.

NEW YORK CITY TRANSIT AUTHORITY
Statement Showing Results of Operation
for 12 Months Ended June 30, 1954

REVENUES:

Passenger Revenue	\$267,793,626.76
Advertising and Other Privileges	5,077,194.65
Other	819,503.04
Total Revenues	<u>\$273,690,324.45</u>

OPERATING EXPENSES:

Productive Time	\$165,422,129.02
Vacations, Holidays and Sick Leaves	19,893,338.74
Differential over Workmen's Compensation	36,687.19
Military Duty	122,384.83
Other Allowances	115,469.56
Total Salaries and Wages	\$185,900,009.34
Contributions to New York City Retirement System	22,525,079.53
Health Insurance Plan	1,982,981.43
Coal and Fuel for Power	8,550,373.65
Gasoline and Diesel Oil for Buses	2,499,065.75
Other Materials and Supplies	13,569,324.70
Power Purchased	9,069,087.60
Rental of Tires	772,060.22
Reserved for Public Liability and Workmen's Compensation	4,093,886.40
Reserved for Deferred Maintenance	15,000,000.00
Miscellaneous	4,325,954.33
Total Operating Expenses	<u>\$267,977,823.05</u>

EXCESS OF REVENUES	<u>\$ 5,712,501.40</u>
Revenue Car and Bus Miles	374,536,705
Revenues per Car and Bus Mile	73.06¢
Expenses per Car and Bus Mile	71.54¢
Revenue Passengers	1,864,888,896
Average Rate of Fare	14.36¢
Revenues per Revenue Passenger	14.68¢
Expenses per Revenue Passenger	14.37¢
Number of Employees	43,070
Annually Rated	6,326
Hourly, Daily and Weekly Rated	36,744

NOTE:

The excess in operating revenues amounting to \$5,712,501.40 as indicated above is subject to a reduction of \$1,306,035.03 representing the deficit for the period from June 15 to June 30, 1953, resulting in an excess of operating revenues over expenses of \$4,406,466.37 since the commencement of operations by the Authority.

NEW YORK CITY TRANSIT AUTHORITY

Passenger Traffic Statistics for 12 Months Ended June 30, 1954

Passenger Revenue

	Rate of Fare				
	10c Registrations (to 7/24/53)	15c Registrations (fr. 7/25/53)	School Fares (a)	Whitestone Bridge (b)	Total
Rapid Transit	\$ 9,302,328	\$194,823,211	\$1,403,861	\$ —	\$205,529,400
Surface	3,243,706	57,319,206	1,320,833	380,481	62,264,226
Total System	<u>\$12,546,034</u>	<u>\$252,142,417</u>	<u>\$2,724,694</u>	<u>\$380,481</u>	<u>\$267,793,626</u>
Passenger Revenue—For previous fiscal year					206,825,975
Increase in Passenger Revenue					<u>\$ 60,967,651</u>
Percentage of Increase					29.48%

The 29.48% increase amounting to \$60,967,651 in passenger revenue is due to the increase in fare from 10 cents to 15 cents on July 25, 1953. However the Authority was prevented from fully realizing the potential yield from the increase

in the fare due to the reduction in fares paid by high school students on rapid transit lines and the heavy decline in passengers carried, as shown in the following statement.

Passengers Carried

	Rate of Fare				
	10c Registrations (to 7/24/53)	15c Registrations (fr. 7/25/53)	School Fares (a)	Whitestone Bridge (b)	Total
Rapid Transit	93,106,578	1,307,350,643	(c) 15,914,182	—	1,416,371,403
Surface:					
BMT	23,081,707	269,823,705	22,835,925	—	315,741,337
Queens Bus	4,374,584	57,122,454	5,072,912	1,939,976	68,509,926
Staten Island Bus	2,265,890	23,857,445	3,172,355	—	29,295,690
Manhattan Bus	2,714,876	31,324,439	931,225	—	34,970,540
Total Surface	<u>32,437,057</u>	<u>382,128,043</u>	<u>32,012,417</u>	<u>1,939,976</u>	<u>448,517,493</u>
Total System	<u>125,543,635</u>	<u>1,689,478,686</u>	<u>47,926,599</u>	<u>1,939,976</u>	<u>1,864,388,896</u>
Number of Passengers—For previous fiscal year					2,098,604,090
Decrease					<u>233,715,194</u>
Percentage of Decrease					11.14%

The 11.14% decrease amounting to 233,715,194 passengers is due to the increase in the fare and a normal nationwide decline in passenger traffic, which may be attributable to the extensive use of private automobiles and the increased number of television sets installed in homes.

(a) On Rapid Transit: High School fares—to May 9, 1954, High School students paid regular fare in the morning (included in preceding columns) and rode free returning from school; from May 10 to June 30, 1954, High School students were permitted to ride free both to and from school in order to effect a reduction to 5 cents for the period February 1 to June 30, 1954; Elementary School fares, 2½-cent Elementary School tickets and \$1.00 monthly passes.
On Surface: High School fares, 5 cents; Elementary School fares, 2½-cent Elementary School tickets and \$1.00 monthly passes.

(b) At 15 cents to July 24, 1953; at 20 cents from July 25, 1953.

(c) Consists of: High School students permitted to ride free traveling from school, July 1, 1953 to May 9, 1954, per Railroad Clerks' count, and traveling to and from school May 10-June 30, 1954, per estimate; and Elementary School fares.

Salaries and Wages

The total salaries and wages charged to Operating Expenses during the fiscal year amounted to \$185,590,009.34 which includes \$4,205,653.80 retroactive pay for the period January 1, 1954 to June 30, 1954, of which \$3,581,187.43 was granted to hourly employees and \$624,466.37 to annually rated employees.

Contributions To New York City Retirement System

The charges for Contributions to New York City Retirement System for employees' pensions amounted to \$22,525,079.53. This is 12% of payrolls of \$187,708,996.12.

Deferred Maintenance

The \$15,000,000.00 provision for Deferred Maintenance was approved by the Authority based on studies by outside engineers indicating the necessity for expenditure of \$75,000,000 for Deferred Maintenance over a five year period.

The current status of the capital structure, showing Transit Debt, Securities outstanding and Fixed charges on Transit Debt, of the New York City Transit System, which is an obligation of the City of New York is as follows:

New York City Transit Investment and Debt—June 30, 1954

To build and acquire the transit system being operated by the New York City Transit Authority on its behalf, The City of New York has made ex-

penditures of approximately one billion, seven hundred eighty-three million, three hundred thousand dollars (\$1,783,300,000). Of these expenditures, about \$1,466,100,000 were disbursed directly by the City for construction and equipment of rapid transit lines and the purchase of privately owned bus lines and about \$317,200,000 under the BMT-BQT and IRT—Manhattan Unification Plans.

The City, under Unification, acquired not only the physical properties owned by the Companies, but also the contract rights in the City-owned lines and the franchise rights in the privately owned lines. It also acquired the capital stock of the South Brooklyn Railway Company which, in addition to its transportation business, was engaged in the freight business.

Fixed Charges On Transit Debt

During the fiscal year ended June 30, 1954, the City paid from tax monies \$43,801,665.39 for interest and \$70,980,886.55 for amortization and redemption, a total of \$114,782,551.94 on its transit debt. The City's tax budget for the fiscal year ending June 30, 1955 includes \$43,315,802.79 for interest and \$27,826,758.27 for amortization and redemption, a total of \$71,142,561.06 for Capital Debt issues; additional budget figures are \$411,125.00 for interest and \$9,600,000.00 for redemption of serial bonds issued for the deficit in Transit operations, including Pension Contributions, a grand total of \$43,726,927.79 for interest and \$37,426,758.27 for amortization and redemption, a gross total of \$81,153,686.06 on that debt.

SECURITIES OUTSTANDING

June 30, 1954

Direct City Debt and Deficiency in Operation including Pension Contributions

	Construction and Equipment	Cost of Unification	Total
<i>Direct City Debt:</i>			
IND Division, Dyre Avenue Line, Culver Line connections, Bus Lines acquired etc.	\$655,949,190.00	\$ 3,966,051.44	\$ 659,915,241.44
Total	<u>\$655,949,190.00</u>	<u>\$ 3,966,051.44</u>	<u>\$ 659,915,241.44</u>
Sinking Fund Reserve	105,697,034.29	899,417.93	106,596,452.22
Unamortized Debt	<u>\$550,252,155.71</u>	<u>\$ 3,066,633.51</u>	<u>\$ 553,318,789.22</u>
BMT Division:			
Rapid Transit and Power	\$171,911,544.44	\$144,210,740.20	\$ 316,122,284.64
Trolley and Bus	—	27,450,000.00	27,450,000.00
Total	<u>\$171,911,544.44</u>	<u>\$171,660,740.20</u>	<u>\$ 343,572,284.64</u>
Sinking Fund Reserve	91,427,868.17	33,929,083.67	130,356,951.84
Unamortized Debt	<u>\$ 80,483,676.27</u>	<u>\$132,731,656.53</u>	<u>\$ 213,215,332.80</u>
IRT Division	\$124,289,654.33	\$135,946,408.36	\$ 260,236,062.69
Sinking Fund Reserve	69,994,553.96	30,829,816.32	100,824,370.28
Unamortized Debt	<u>\$ 54,295,100.37</u>	<u>\$105,110,592.04</u>	<u>\$ 159,411,692.41</u>
Total Direct Transit Debt for Construction, Equipment and Unification	\$952,150,388.77	\$311,573,200.00	\$1,263,723,588.77
Sinking Fund Reserve	267,119,456.42	70,658,317.92	337,777,774.34
Unamortized Direct City Transit Debt	<u>\$685,030,932.35</u>	<u>\$240,914,882.08</u>	<u>\$ 925,945,814.43</u>
Deficit in Transit Operation including Pension Contributions	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 22,737,354.00</u>

TOTAL TRANSIT DEBT

June 30, 1954

	Deficit in Transit Operation, Etc.		
Total Outstanding Debt	\$22,737,354.00	\$952,150,388.77	\$311,573,200.00
Sinking Fund Reserve	—	267,119,456.42	70,658,317.92
Unamortized Transit Debt	<u>\$22,737,354.00</u>	<u>\$685,030,932.35</u>	<u>\$240,914,882.08</u>

DEBT EXEMPTED FROM CONSTITUTIONAL LIMITATION

	Total Originally Exempted	Outstanding Debt Exempted as of June 30, 1954
Securities Issued Under Contracts Nos. 1 and 2, exempted as self-sustaining under the State Constitution	\$ 51,013,724.86	\$ 8,756,724.86
Exempted for Independent Subway System	300,000,000.00	223,250,551.11
Exempted for Transit Unification	315,000,000.00	311,573,200.00
Exempted for Second Avenue Trunk Line Projects	500,000,000.00	No Issues
	<u>\$1,166,013,724.86</u>	<u>\$543,580,475.97</u>

BUDGET BUREAU

In the first 16 days of Transit Authority operation, from June 15 to 30, 1953, the Authority completed a fiscal year with total operating expenditures of \$258,774,029. During this period, it set about to reduce its operating costs and effected annual savings of \$782,000.

The Operating Budget for 1953-54, in preparation prior to the Authority's inception, was amended for these savings and was approved subject to amendment for further economies and changes in working conditions.

This Operating Budget, in summary form, comprised:

NEW YORK CITY TRANSIT AUTHORITY

Operating Budget

July 1, 1953 to June 30, 1954

(Approved as of July 1, 1953)

Department	Employees	Labor	Material	Other	Total
Executive	44	268,000	3,000	4,000	275,000
Secretary	85	302,000	35,000	25,000	412,000
Payroll	214	755,000	60,000	5,000	820,000
Personnel	89	290,000	19,000	1,200	310,200
Accounting	290	1,070,000	23,000	44,000	1,137,000
Revenue	142	590,000	16,000	12,000	618,000
Purchase & Stores	381	1,450,000	18,500	4,000	1,472,500
Medical	67	273,000	14,000	38,000	325,000
Law & Real Estate	77	333,000	6,000	279,000	668,000
Transportation Torts	349	1,504,000	33,000	96,000	1,633,000
Special Inspection	315	1,053,000	1,000	5,000	1,059,000
Office of General Superintendent	63	298,000	5,000	2,000	305,000
Police Bureau	634	2,600,000	4,000	44,000	2,648,000
BMT R. T. Transportation	5,022	19,584,000	80,000	5,000	19,669,000
IND Transportation	4,538	17,480,000	65,000	2,500	17,547,500
IRT Transportation	6,844	27,000,000	80,000	8,000	27,088,000
Maintenance of Way	7,538	29,550,000	3,500,000	770,000	33,820,000
Office of Asst. Gen. Supt.—Surf. Lines.....	54	248,000	351,000	300	599,300
Office of Asst. Gen. Supt.—R. T. Car Maintenance	13	70,000	400	100	70,500
BMT R. T. Car Maintenance	1,287	5,327,260	1,630,000	220,200	7,177,460
Surface Transportation	7,118	31,349,000	98,000	85,000	31,532,000
Surface Car & Bus Maintenance	2,393	9,945,000	6,010,000	1,130,000	17,085,000
IND Car Maintenance	1,589	6,231,400	1,099,950	198,200	7,529,550
IRT Car Maintenance	2,745	11,925,432	2,069,662	700,125	14,695,219
Lost Property, Transfers, etc.	16	59,000	148,000	200	207,200
Power	2,938	12,920,000	9,850,000	11,250,000	34,020,000
Building & Office Services	124	320,000	22,000	58,883	400,883
So. Bklyn. R'wy. Co.—Freight Supv.	19	74,000	2,000	600	76,600
Engineering	65	270,000	20,300	15,000	305,300
Employees Assigned to N. Y. C. Retirement System	64	205,000	100	2,000	207,100
Non-Departmental Expenses	—	—	—	24,375,988	24,375,988
Total	<u>45,117</u>	<u>183,394,092</u>	<u>25,313,912</u>	<u>39,381,296</u>	<u>248,089,300</u>

The total allowance of 45,117 employees was 703 fewer than the budget for the prior year. However, the Authority was faced with forecasts of shrinking revenues, a backlog of maintenance estimated by consulting engineers at \$75,000,000 and labor demands for substantial wage increases.

Being responsible for a self-sustaining operation, it was necessary to increase the fare from 10¢ to 15¢, which was done on July 25, 1953.

During the year, new economies were introduced to the extent of 1,855 employees and \$5,962,000 on an annual basis. The first step of an extensive Deferred Maintenance program was taken, for which \$15,000,000 was set aside. The budget was amended for a higher pension allocation and the cost of the handling of the increased fare. Pay increases were granted and made retroactively effective to January 1, 1954, costing \$9,630,000 per year.

The amended Operating Budget totaled \$274,430,986, as compared to \$248,089,300 approved as of July 1, 1953 and actual expenditures for 98.64% of this allowance, or \$270,692,922 before credit for amounts chargeable to other than New York City Transit Authority operations.

The total economies of \$6,744,000 per annum effected by the Authority between June 16, 1953 and June 30, 1954, are distributed among the following functions and classifications of expense:

Administrative & Executive	\$ 843,000
Rapid Transit Cars & Shops	392,000
Rapid Transit Transportation	2,339,000
Surface Transportation	885,000
Surface Maintenance	1,090,000
Power	238,000
Maintenance of Way	125,000
Pensions, Health Insurance Plan & Workmen's Compensation	332,000
Total Economies	<u>\$6,744,000</u>

MEDICAL DEPARTMENT

Medical services rendered to employees of the Authority during the year ended June 30, 1954, consisted of the following:

A total of 93,540 medical services were performed under the supervision of the Medical Director-Chief Surgeon; 44,907 in cases resulting from service connected injuries; 18,483 were non-service connected cases, and the balance of 30,150 was made up of office and home visits, X-Ray treatments, pre-employment medical examinations, hospital cases, clinical laboratory and first aid treatments.

The medical department maintains six clinics; three are located in Manhattan and in the Bronx and three in Brooklyn.

A physician, assisted by a nurse and clerical force, is in charge of each clinic. It is fully equipped with X-Ray, laboratory and physiotherapy sections.

Medical Department — Clinic No. 4 — 370 Jay Street Building.



Medical Department — X-Ray Section — 370 Jay Street Building.



MEDICAL STATISTICS

Analysis of Medical services performed during the fiscal year ended June 30, 1954 shows the following:

Service Connected Injuries

Abrasions	387
Amputations	9
Back Injury	403
Burns	224
Contusions	1,620
Electric Shock	8
Eye Injury	956
Foreign Body (Except Eye)	133
Fractures	209
Hernia	112
Infections	67
Lacerations	674
Medical Cases due to Accident or Occupation	45
Poisoning—Gas, Smoke, etc.	16
Puncture Wounds	135
Skin Cases	94
Sprains	1,094
No Evidence of Injuries Found Due to Accident	225
Examined in clinic, but treated by outside Doctors	115
	<hr/>
	6,526
Revisits to Clinics	24,660
Consultations	779
Physical Therapy	8,781
House and Hospital Visits	129
Compensation Hearings	435
Cases Referred to Transit Authority's Specialists	3,547
Total Service Connected Cases	44,907

Non-Service Connected Cases

New Patients	2,109
Revisits	774
Medical Examinations—	
Fitness for Duty (alcoholic indulgence)	76
Leave of absence, Departmental & Sick Leave	1,848
Light Work	1,624
Periodics	8,681
Promotions	194
Reassignments	82
Reinstatements	78
Recheck on Defects; Special Examinations	2,076
Consultations	841
House & Hospital Visits	100
Total Non-Service Connected Cases	18,483
In addition to the detailed services shown above, 2,074 employees received	
X-Ray exposures totaling	6,121
Services performed by physicians at Bus Divisions, Clinical Laboratory,	
First Aid Room, Hospital Cases Treated (Nonoperative), and Hospital	
Cases Operated	24,029
Grand Total—Services Rendered to Employees	<hr/> <u>93,540</u>

BUILDING AND OFFICE SERVICES

The Authority shortly after taking office approved recommendation that a contract be prepared to provide Janitorial and Window Cleaning Service in the Transportation Building at 370 Jay Street. This contract was entered into on November 23, 1953, thereby enabling the Authority to realize a saving of over \$40,000 per year and at the same time obtain a greater cleaning efficiency and production in the building.

Based upon data compiled by the Building and Office Services Department it will be possible, in the future, to convert the passenger elevators in the Transportation Building from manual to automatic operation with an estimated saving of over \$40,000 per year. Modification of a freight elevator to automatic operation has effected a reduction in personnel and a saving of \$5,000 per year.

The Department is reviewing office space use throughout the Transportation Building to make more economical and better functional use of available room. It is expected that this survey will provide about 20,000 square feet for the expanding needs of Authority personnel.

CIVIL DEFENSE

Colonel S. H. Bingham, Transit Authority Executive Director and General Manager, was called upon by the City of New York in 1950 to organize and direct the land, water and air transport facilities within the city for Civil Defense purposes. Under Colonel Bingham's direction and leadership these various transport units have been integrated into the Transportation Emergency Division, Office of Civil Defense, City of New York.

The Transit Authority participated in the New York State-Ordered Civil Defense Training Exercise in September 1953 and the National Training Exercise, "Operation Alert", June 14, 15, 1954. Borough Control Centers were manned for these exercises by Transit Authority personnel who had given of their time and had been trained in Civil Defense procedures.

Fifteen borough communication exercises have been held during the past year together with other Civil Defense Emergency Divisions for the purpose of coordination and training.

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